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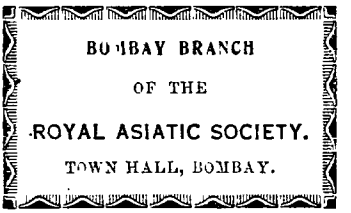

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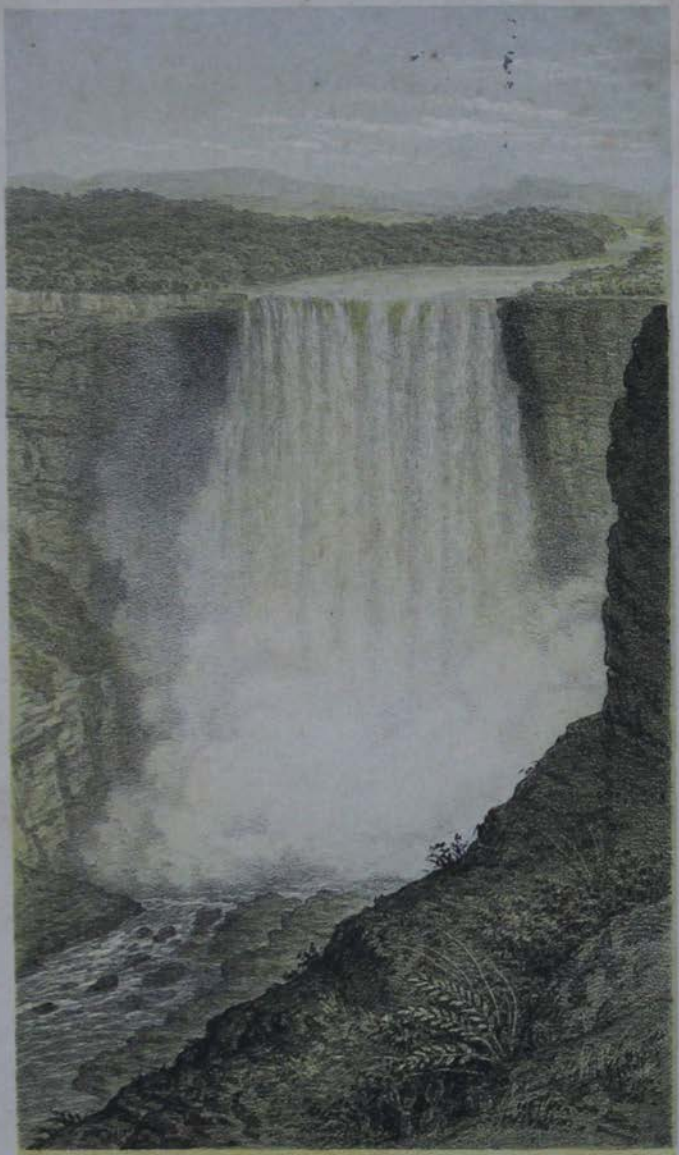
CANOE AND CAMP LIFE

IN

BRITISH GUIANA.



C. B. Brown, del.

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KAIETEUR FALL

CANOE AND CAMP LIFE

IN

BRITISH GUIANA.

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BY

C. BARRINGTON BROWN, Assoc. R.S.M.,

LATE GOVERNMENT SURVEYOR IN BRITISH GUIANA.

WITH MAP AND ILLUSTRATIONS.

Second Edition.

LONDON:
EDWARD STANFORD, 55, CHARING CROSS, S.W.

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PREFACE.

DURING the time I was travelling in the interior of British Guiana, apart from my official work I noted down each evening any incidents that occurred during the day.

In this volume I have set down those incidents in the order in which they took place, together with the routes followed, and so present them to the reader in the hope that they may be found worthy of perusal.

I have confined myself exclusively to a relation of the above, not touching upon that part of my work relating to the Physical Features and Descriptive Geology of the Colony, the reports upon which have already been published by the order of the Lords Commissioners of Her Majesty's Treasury.

The accompanying map is based upon that of Schomburgk, to which has been added sketch surveys of the Potaro, Siparuni, Burro-burro, New and

Mazaruni rivers, the points on the latter having been determined by observations for latitude and longitude.

The course of my journeys is marked on the map by a blue line, so that the reader will have no difficulty in tracing it out.

LONDON, *June*, 1876.

CONTENTS.

CHAPTER I.

TO THE CUYUNI RIVER.

Guiana — Demerara — The Interior — Embark Indian Crews — Ascend Estuary of the Essequebo — Bartika Grove — River People — Penal Settlement .. .. Page 1

CHAPTER II.

ON THE CUYUNI.

Leave Penal Settlement — First Rapids — River Scenery — Shooting Fish — Iguana — The Gold Mine — Lowlow Fish — Meet Indians — Woodskins — Birds — Weynamou — Send back Boat — Manufacture of Cassava — Labba — Indian Pepper-pot — Banaboos — Shooting Cataracts — Camp at Puruni Path — Sudden death of an Old Indian — Indian dying from Secret Poisoning 8

CHAPTER III.

DOWN THE PURUNI.

March out of Camp — Indian Path — Ticks — Camp in Forest — Tricked by Guide — Fleas and Jiggers in unoccupied House — Mogoose — Wind Storm — Start down Cartoonie in Canoes — Otters — Get jammed under Log — Humming-bird Nests — Reach Puruni River — Maam — Stung by Ants — Kill a Capybara — Scorpions — Reach the Mazaruni 34

CHAPTER IV.

UP THE MAZARUNI.

Cowenamou — Tale of Poisoning — Indians poison Pool for Fish — Our Boats arrive — Continue Journey up Mazaruni — Ascend Issano Creek — Mysterious Sound — Sponges — Sororieng — Red Howlers — Ouranapai — Indian Dances — Attacked by Warricaba Tigers — From Carabung to the Upper Mazaruni — Proceed in Canoes to Apiopai — Starvation — Collect Provisions — Return to Carabung — Adventure with Bushmasters — Regain our Boats — Ascend Mazaruni to Peaimah — The Didi — Descend Mazaruni 52

CHAPTER V.

UP THE ESSEQUEBO TO RORAIMA.

Leave Penal Settlement — Indian Picture-writing — Rappu Bamboo — Apoterie — Enter Rupununi — Catch Cayman — Reach Pirara Landing — Visited by Macusis — Start on Walking Journey — Cross Ireng — Ant-hills — Enter Valley in Pacaraima Mountains — Festival at Enamouta — Scarcity of Water — Send back most of Party to Karakanang — Adventure with Ant-bear — Cross Cotinga River — Human-like Cries — Arrive at Roraima — Leave Roraima — Strange Bleeding Process — Armadillos — Return to Pirara Landing .. .. Page 91

CHAPTER VI.

TO PIRARA AND THE IRENG.

Karinambo — Vampire Bats — Sketch of Brazilian Capture of Pirara in 1840 — Snipe in Pipicho Morass — Descend Rupununi to Mora — Walk across Mountains to Ireng River — Peai-ing — Indian Belief — Indian Warfare — Stone Circle — Descend Rupununi — Obtain Breech-loading Cannon — Indian Murderer at Apoterie — Descend Essequebo to Penal Settlement 133

CHAPTER VII.

UP THE REWA AND QUITARO RIVERS.

Ascend Rewa — Enter Quitaro — Wapisiana Indians — Visit Ataraipu — Mysterious Sound — Quata Monkeys — Perai — Bush-hog Hunts — Start on Journey over Quitaro Savanna — Fly Pests — Wapisiana Salutations — Atorai Indian Village — Carawaimintow Mountain — Paiworie Drinking Bout — Monkey Hunt — Visit Shea Rock — Black Bees — Farinha — Rattlesnake — Return to Boat — Descend Quitaro on Homeward Journey 148

CHAPTER VIII.

UP THE BURRO-BURRO, AND ACROSS TO THE POTARO.

Leave Settlement — Ascend Siparuni — Water-boas — King Vultures — Poisonous Water-snake — Ascend Burro-burro — Game — Surama — Bell-birds — Porcupine — Visit Annai — Have Shot at Tiger — Start on Journey to the Potaro — Indian Legends — Cara-cara — Monoorie Ants — Owenteik — Indian Game — Frog Pits — Kibihies — Enapowou — Descend Potaro — Discover Kaieteur Great Fall — Partamona Indian Village — Reach Tumatamari — Arrive at Settlement 173

CHAPTER IX.

KAIETEUR FALL.

Difficulties of Ascent of Potaro River—Walk from Landing to Foot of Kaieteur — Take Measurements of Height of Fall — Legend of Origin of Name of the Fall — Swallows — Views — Visit Basin at Foot of Kaieteur — Difficulties of Approach — Descend Potaro — Arrive at Georgetown — Table of Measurements .. .. Page 209

CHAPTER X.

TO AMAILAH FALL AND THE UPPER ESSEQUEBO.

Leave Georgetown — Ascent of the Curiebrong — Visit Amailah — Cocks of the Rock — Return to Essequebo — Funeral Dance at Apoterie — Adventures with Cayman — King William IV.'s Fall — Manarowah Fall — Make Portage — Shoot a Tapir — Habit of Jaguar — Sand-wasps — Arrive at Village of Taruma Indians — Maopityans — Reach farthest Point attainable — Haimara — Descend Essequebo — Dangerous Cataracts — Meet our Provision Boat — Reach Apoterie — Joined by Mr. Pollard 224

CHAPTER XI.

UP THE COTINGA.

Ascend Rupununi — Christmas Day —Walk to Takutu — River Porpoises — Spoonbills — Ascend Ireng to Pirara River — Cross over to Aringwong — Descend Takutu to Cotinga — Ascend Cotinga — Black Flies — Savanna Fox — Meet Wapisianas — Journey Northward — Amusing Scene crossing the Karuang — Ascent of Ireng — Orindouie Fall — Return — Indian Huntsmen — Descend Cotinga — Wild Cattle — Fort St. Joaquim — Return to Karinambo 257

CHAPTER XII.

OVER THE TAKUTU SAVANNA.

At Karinambo — Walk to the Takutu — From the Takutu to Cursato — Ascent of Cursato Mountain — Chase Ant-bear — Pinniyettinow — From the Takutu to the Rupununi — Double Snipe — Cartunariba — Coolie — Down the Rupununi — Visit Chewow River — Leave Karinambo and descend Rupununi — Ascend Essequebo to Primos Inlet — Cross through Forest to Berbice River — Descend Essequebo to Penal Settlement 301

CHAPTER XIII.

ON THE CORENTYNE.

Journey to Skeldon — Oreala — Description of Journey on the Corentyne — Discovery of New River — Jaguars and Pumas — Mode of hunting them with Dogs — Scarcity of Indians — Game — Perai — Haimara — Sting Rays — Trees in Flower — Monkeys breaking Brazil Nuts — Mosquito Worms — Fraternity of Wasps, Ants, and Mocking Birds — Attack on Tamrian Ants by Ecitons — Return to Skeldon Page 326

CHAPTER XIV.

BERBICE AND DEMERARA RIVERS.

Leave New Amsterdam — Description of Journey up Berbice, across to Demerara River, and down to Couchman's — Toads eat Fire — River Shells — Roaring of Jaguars — Tapir rushes through Camp — Shoot Quata Monkey — Archway of Ants — Scenery on Berbice — Reach Georgetown 359

CHAPTER XV.

THE UPPER MAZARUNI.

Leave Georgetown — Reach Peaimah Fall — Difficult Portage at Aruwai Falls — Sericoeng Falls — Difficulty in obtaining Woodskins — Send back Boats to the Merumé River — Pass "Starvation Landing" of Apiopai — Mysterious Footprints — Deep Pools the Haunts of Tigers — Guacharos Cave — Waterfall on Roraima — Chichi Portage — Ayang-canna — Journey from Haiacker to Ourindouie Fall on the Ireng — Return — Ow-weang Portage — Cross Mountains to Merumé — Descent of Merumé Mountain — Rejoin our Boats on Merumé River — Descend Mazaruni — Arrive in Georgetown 376

LIST OF ILLUSTRATIONS.

No.

1. KAIETEUR FALL .. .. *Frontispiece*
2. HAULING UP A CATARACT .. .. *To face page* 10
3. KARINAMBO .. .. „ 108
4. RORAIMA .. .. „ 122
5. SHOOTING BUSH-HOGS .. .. „ 155
6. AN ENCAMPMENT .. .. „ 174
7. COWARIE AND SARQUAH (MACUSIS) .. .. .. „ 263
8. WONOTOBO MIDDLE FALL .. .. „ 328
9. CAYMANS .. .. „ 367
10. SERICOENG AND AYANGIKE .. .. „ 382

MAP .. .. *At end*

CANOE AND CAMP LIFE

IN

BRITISH GUIANA.

CHAPTER I.

TO THE CUYUNI RIVER.

Guiana — Demerara — The Interior — Embark Indian Crews — Ascend Estuary of the Essequebo — Bartika Grove — River People — Penal Settlement.

WITHIN the Torrid Zone, and forming the northern portion of South America, lies the wonderful country of Guiana, now divided into five portions, known respectively as Venezuelan, British, Dutch, French, and Brazilian Guiana.

British Guiana—the only possession of Great Britain on the whole South American continent—is better known to the world at large as "Demerara," from its capital (Georgetown), being situated at the mouth of a river of that name.

The civilized and cultivated portion of the colony lies only along a narrow strip of sea-coast. Behind this are swamps, then wooded rising ground, and finally mountains and savannas stretching southwards, all lying in a state of nature, the haunts of wild animals and various Indian tribes. This portion, between the

rear of the sugar estates and the confines of the colony, is known as the "Interior"; and, with the exception of a few settlements on the banks of the lower Berbice, Demerara, and Essequebo rivers, it remains to-day in the same state as in the time of Raleigh.

Whilst engaged as geologist on the Government geological survey of the West Indies, it fell to my lot to visit and explore much of this interior region; and in these pages I have attempted to recount the incidents that occurred during those explorations.

The first journey, performed by my colleague, Mr. Sawkins, and myself, had been over the north-western portion of the colony, towards the mouth of the Orinooko, on the Pomeroon, Waini, Barama, and Barima rivers. As the only mode of travelling, when the narrow fringe of cultivated land is left, is by water, and occasionally by Indian paths, we had journeyed in our own boats upon the above-named rivers, furnished with crews of civilized Arowaak, Warrow and Ackawoise Indians, by Mr. McClintock, of the Pomeroon. Thinking that these Indians would serve as boat crews on the large rivers of the interior, we had again applied to Mr. McClintock to re-engage them, and were now about to proceed down the coast in a hired sloop to meet them at Anna Regina sugar estate—a place to the north-westward of the mouth of the Essequebo river.

On the 14th of August, 1868, as the sun was dipping behind the long distant band of courida trees, which line the low western shore of the mouth of the Demerara, the hawsers of the sloop "Swift" were cast off from Kingston Wharf, and, close-hauled on a

fresh north-east trade breeze, she glided out of the river's mouth, past the old fort, to the sea. Gaining a good offing the sheets were eased out, and away the old craft went on a north-westerly course, soon leaving the lights of Georgetown far behind. After a pipe or two I felt the drowsy effects of the soft sea breeze, and stretching myself on the after hatch-cover procured a sort of broken sleep.

Just before daybreak the captain—a negro—informed me that in his opinion we were quite up to, if not past, our place of call; and as there were no landmarks on the dim coast-line to show him his whereabouts, he would run in shore a bit. He was preparing to do so when the sloop struck heavily on a sand-bank, bumped along, and then became stationary. When daylight came we found that we were not within ten miles of "Anna Regina," and that as the tide was running out rapidly, the sloop would remain a hopeless fixture till it rose again. We took a boat and pulled along near the coast until we arrived opposite the long wooden pier or stelling of Anna Regina estate, from the end of which we were separated by a most uninviting stretch of mud flats. There we sat in a broiling sun for two hours, until the tide crept slowly up over the great glistening stretch of gray sea bottom, and floated our boat landwards, foot by foot. On gaining the shore we found the seventeen Indians and a Portuguese, hired by Mr. McClintock, waiting for us. When the tide rose sufficiently high to float the sloop she got under way, and in the afternoon came up to the pier. We embarked the Indians and left for the mouth of the Essequebo, arriving at Spring Garden

at midnight. During the small hours of the morning I awoke, feeling feverish; and landing at daylight went to the house of my friend, the late Mr. G. Bascom, then proprietor of Spring Garden sugar estate. My attack of fever lasted two days and prevented my accompanying Mr. Sawkins on a journey up the Supinam creek. Three of our Indians also suffered from a similar attack of fever and influenza.

On the 24th we left Spring Garden with our four boats. Two of these were tent-boats, and one a long, narrow, dug-out canoe. Paddling along near the muddy tree-clothed margin of the river we wended our way in a southerly direction up the broad estuary of Essequebo; and at nightfall camped in the forest on the edge of a sandy bay, hanging our hammocks to trees for the night. In this land of palms, within seven degrees of the equator, the thermometer out of the sun's rays seldom falls below 73° or rises above 85°; so that near the sea level one can sleep in a hammock in the open air without any inconvenience, except when the dew is particularly heavy or a rain storm comes on. A light canvas awning, spread on a ridge pole over the hammock, is a sufficient protection against these evils. When a person goes on a long journey through the wilds of a tropical country, he must take every reasonable precaution to protect his health, for there are times when a drenching rain will bring on a sharp attack of fever.

We spent two days upon a small tributary called Groote creek, and then proceeded on our journey up the Essequebo, reaching Bartika Grove at noon on the 28th.

Bartika Grove is a small village, situated on a low level point of land facing the north, at the junction of the Mazaruni river with the Essequebo, at a distance of some 45 miles from the mouth of the latter. It has one grass-grown street along the river's edge, shaded with mango trees, a good church, a few wooden houses, and a lot of thatched huts. The inhabitants of this place and the neighbourhood are chiefly a mixed race, the descendants of the progeny of Indians, negroes, and the early Dutch settlers. They are short in stature, dark-skinned as a rule, strongly built, and very hardy. Amongst the cataracts of the rivers, where the navigation is extremely difficult and dangerous, these men are quite at home, and display great skill and courage in guiding boats safely up and down them. They have small settlements, here and there, along the west bank of the tidal portion of the Essequebo, westwardly along the south bank of the Mazaruni to the head of the tide, and along its west bank above its junction with the Cuyuni river. They are an exclusive set of people, and gain a livelihood by working timber punts for the wood-cutting establishments in the neighbourhood, or as sailors in the small craft carrying granite from the quarries at Palmer's Point and the Penal Settlement to Georgetown.

On landing we went to the house of Mr. Grant, the magistrate of the district, who assisted us in procuring the services of Peterson and other river men, to act as steersmen and paddlers up the Cuyuni river, whither we were then bound. After leaving the Grove we paddled along in shore for about a mile and a half against the strong tide setting down the Mazaruni, and

then crossed over to the Penal Settlement. This establishment is situated on rising ground on the north side of the Mazaruni, and with its neatly-kept buildings and rows of mango and other trees, has a very pretty appearance from the river. It is a prison for all those convicts of the colony whose term of confinement is of long duration.

The Visiting Commissioner's house having been placed at our disposal by the Government Secretary before leaving Georgetown, we landed with the permission of the superintendent, my esteemed and lamented friend, the late Captain Kerr, and took up our quarters in it for the night. From its wide verandah in front there is a fine view looking east down the Mazaruni and across the broad Essequebo, in which the wide expanse of water is relieved by a cluster of small islands.

Most of our Indians would not remain at the Penal Settlement, where there were lots of sheds for them to hang their hammocks, but going across to the other side of the river, camped in the forest. One of them was still very ill with fever, and the doctor of the prison wished him to be taken to the hospital, where he could be properly nursed, but nothing would induce him to go. These Indians are of such a timid nature, and have so great a love of freedom, that the very name of prison sounds terrible in their ears.

For the next three days we were completely in the hands of the river men, with old Peterson at their head. They condemned the long canoe as unfit for traversing cataracts, and our Indians as useless, from their want of knowledge of the kind of work before us.

We agreed to bow to their decision regarding the canoe, but adhered to our determination to keep the Indians and give them a trial at any rate. Being in a fix, therefore, about a boat to replace the canoe, we were induced to buy the only one for sale in the district. After the purchase was made it was put in the hands of the Settlement boat-builder to caulk, and was found to require extensive repairs. As it would take some days to perform this work, we left a crew to bring on the boat and join us at the "Gold Mine," some thirty miles up the Cuyuni.

CHAPTER II.

ON THE CUYUNI.

Leave Penal Settlement — First Rapids — River Scenery — Shooting Fish — Iguana — The Gold Mine — Lowlow Fish — Meet Indians — Woodskins — Birds — Weynamou — Send back Boat — Manufacture of Cassava — Labba — Indian Pepper-pot — Banaboos — Shooting Cataracts — Camp at Puruni Path — Sudden death of an old Indian — Indian dying from Secret Poisoning.

WITH our three boats we left the Settlement on the morning of the 1st of September. Each boat was now furnished with a bowman and steersman, who, with our Indian paddlers, made a total of twenty men. Proceeding along the north side of the river, we soon entered the mouth of the Cuyuni—a fine river, some three-quarters of a mile in width—and passing some islands during the forenoon reached the first rapids. There, of course, the influence of the tide was no longer felt, and the skill of both bowmen and steersmen was brought into play. Each was provided with a large paddle with a blade some three feet long, and a handle of equal length. The bowman stood in the bow, and using his paddle like a lever, kept the boat's prow up stream at a sharp angle, whilst the steersman held as it were against him on the opposite side of the boat at the stern. The paddlers gave way, beginning a short distance below the foot of the rapid on one side of the channel with a

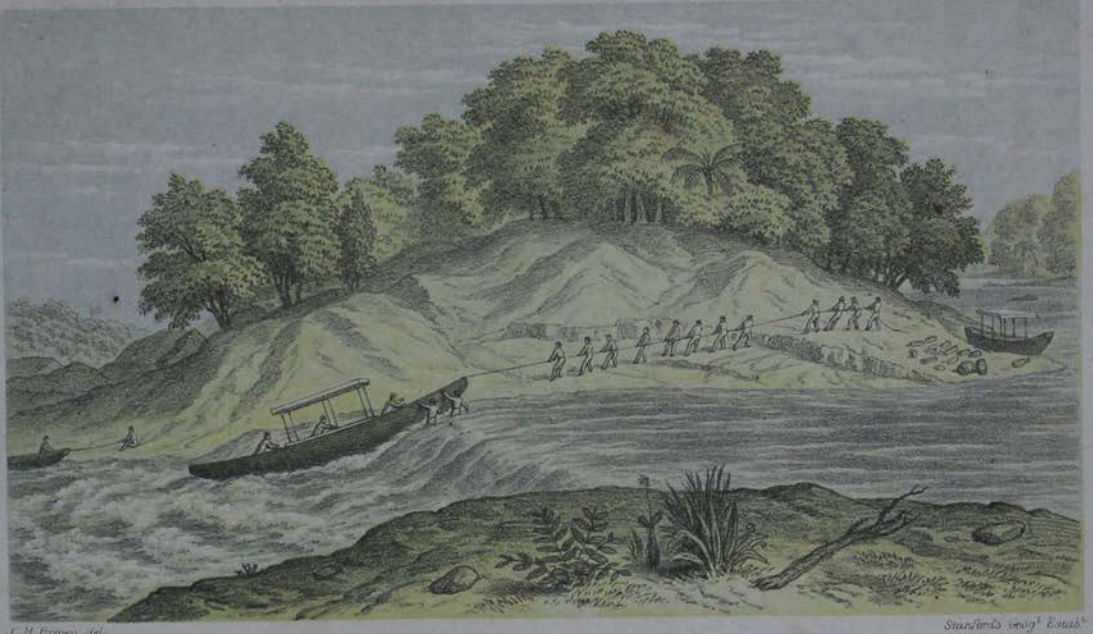
strong but slow stroke, getting quicker and quicker as they proceeded, and as the boat mounted up it was carried sideways across to the opposite edge. When the rapid was small the boat was then above it; but when wide the bow was deftly turned so as to catch the force of the current on the other side, and the boat propelled across diagonally to the opposite shore of the channel. As the boat got above the strong grasp of the rush of water to the level on top she bounded forward, when the paddlers changed the stroke at once to a few long pulls, and then rested awhile. When the rapid was very strong this mode of procedure did not succeed, and the boat fell back in spite of every effort. Then the men drew her to the rocks on the side of the channel and got out the tow-rope—a 3-inch tarred hemp—and hauled her up in shallow water, some men holding on alongside to guide her.

Where the river flows smoothly it is deep, and if without large islands is in one broad channel; but where its passage is obstructed by bars of rock, forming rapids or cataracts, it widens out amongst rocks, rocky islets, and shallows, to an immense width. Of the various channels into which it then splits there is always one large or main one, and this is the one usually followed by the boatmen when the river is low. On the other hand, when it is in flood, the smaller channels are sought. These channels are usually full of pointed rocks, some above, and some just beneath the surface, so that it requires great skill on the part of the steersman to evade them.

We had paddled up two rapids and hauled up three,

when Mr. Sawkins found that his crew of Arowaaks were not sufficiently acquainted with the work to wade and swim in strong currents, and that it was dangerous to proceed with them. Putting the boats' heads down stream we ran the rapids we had ascended to their foot, and there held a consultation as to our next move, which resulted in my going back to the Settlement that afternoon and returning next day with six river men in place of an equal number of the Indians whom we sent off to their homes. The river men worked splendidly in the cataracts, swimming, diving, and wading in the strong currents from rock to rock, while leading out the tow-ropes and hauling the boats up. During our journey up this river we encountered in many parts a succession of rapids and cataracts. At the latter the contents of the boats had sometimes to be carried across, and the boats themselves hauled over the rocks on the thick covering of aquatic plants. The most formidable cataract we encountered was the "Style Fall," which is about eight feet in height, and is produced by the river flowing over a bar of whitish granite.

The scenery on the river is pretty, but no views of any extent are disclosed. The chief features observable are intervals of comparatively still water lying between large, low, irregularly-shaped rocky areas, cut up by wide channels of foaming water, where the river rushes over granite or gneiss obstructions. Each level patch is higher than the last by a few inches when a rapid intervenes, and by two or three feet where a cataract occurs. On the rocky islands where soil has accumulated are clusters of low



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HAULING UP _ A CATARACT.

trees of various sorts, the stems and large branches of which are covered with various parasitic plants, orchids, and wild pines. The forest trees on the main banks of the river are of different kinds and larger growths than those on the rocky islets, being chiefly moras (*Mora excelsa*). In cracks in the rocks the stunted water guava (*Psidium fluviatile*) sends its roots and thrives; whilst on the rocks under water where the current runs strongest is a luxuriant growth of various sorts of aquatic plants (*Lacis sps.*). These plants bear very pretty flowers at this season of the year as soon as they are left uncovered by the subsiding of the waters after the rainy season, but still kept moist by the wash of the water's edge. One small-leaved species has a little white star-shaped flower, on a short delicate stem, which has a slight perfume, and proves an attraction to numerous species of wild bees. Another kind with large coarse crisp leaves, growing amongst the cataracts on the upper part of the river, presents a most beautiful sight when in flower. It has tall flower stems over a foot in height, of a greenish colour, and, though thick, of a plumose form. The flowers of a delicate pink colour burst out along the edges of the upper portion of the stalk from half-way up to the top. It sends up its flower stalks when the water covers its leaves to a depth of three or four inches, so that there are large shallow water areas thickly studded with these beautiful flowers.

When the sun is high numerous butterflies, chiefly of various shades of yellow and orange, flit about over the open spaces amongst the cataracts, or sit in clusters

near the water's edge. The beautiful azure blue butterfly (*Morphos*) is also seen, but its favourite haunts are the narrow side streams.

Our men frequently shot deep-bodied, silvery-scaled fish, called cartabac (*Tetragonopterus latus*), and another somewhat similar fish, called pacu (*Myletes pacu*). The male of the latter has a large deep body of a dull goldfish colour, while the female is of a dull bluish brown. Their flesh is firm and of a peculiarly pleasant nutty flavour. They have even rows of teeth shaped like the incisors of mammals. These fish browse upon the aquatic plants in the swift running water, and are easily shot, when feeding near the surface, by those skilled in the use of the bow and arrow. The bows that our men used for this purpose had been procured from the Indians of the interior. They were very long and straight, and made of hard red wood. The shafts of the arrows were made of long straight reeds—the flower stalks of the wild cane—tightly bound to a short piece of extremely tough wood inserted at one end, called a "shimara-sherie" or "wirecash." The end of the latter fits into an iron arrow-head, to which it is attached by a piece of cord in such a way, that when the point pierces the fish the barbed head comes off the arrow end, but still remains attached to it by the cord. This allows the shaft freer play, so that during the struggles of the fish it is not broken. Sometimes a light cotton cord of about fifteen feet in length is made fast to the wirecash, one end being attached to the left hand of the fisherman. When the fish is within a short distance of the man the latter lets fly the arrow, and aiming a few

inches below the fish, to allow for refraction, strikes it in the body. The fish, pierced by the barbed point which remains in it, being now in direct communication with the man's hand by means of the cord, is easily landed.

On our way we landed near an isolated hill called Woka, and walking along a level tract in the forest to its foot, climbed to its summit. Under a large ferruginous rock on the hill-side one of the Caribs pointed out the sleeping place of a jaguar, and down in the mud on the river's edge we saw the tracks of this animal.

We were frequently amused with the manner in which the iguanas (*Iguana tuberculata*), alarmed by the noise produced by the boat's paddles, threw themselves from the overhanging branches of trees into the river, many coming down broadside on the water. These reptiles, when full grown, attain a length of between three and four feet, including the tail, which is long and pointed. Their flesh resembles that of a chicken in flavour and quality, and is very good when properly cooked. They are exceedingly numerous on this river, where they dig long underground chambers in the sand-banks at the ends of islands, in which they deposit their eggs. Near the foot of a cataract, where there was a high beach, our men dug up the sand in order to trace out some of these chambers for eggs, and succeeded in capturing four iguanas, which they dragged out by their tails and then seized by the back of the neck and secured. They had to be pretty quick, for the iguana can turn round suddenly and give a fearful bite. An iguana must be drawn from its hole with rapidity, for, if it has time to think,

it lets go its tail at the base, leaving it in the hands of the would-be capturer, and thus escapes.

One of these reptiles, captured in its burrow, when killed and cut up for cooking, was found to contain ten eggs of an ellipsoidal form, shell-less, and midway in size between a pigeon's and hen's egg. These are good eating when boiled for about five minutes and then allowed to get quite cold. They then require some manipulation. A hole is made in one end of the skin, and the albuminous part, which never coagulates, is squeezed out; then the skin is stripped off, and the semi-hardened yelk, of the consistency of butter, is eaten with salt. Our men and the Indians had a most cruel way of preventing captured iguanas from escaping, by slitting down the sides of two fore and two hind toes, on opposite feet, and passing the toes between the bone and sinew in such a manner that they could not be disengaged by the struggles of the poor animal. The manner in which they were slaughtered, viz. by inserting a hard pointed stick up one nostril into the brain, was also a very cruel proceeding.

At noon on the 5th we reached the abandoned "gold mine" of the Demerara Gold Mining Company. We found the place all overgrown with tall shrubs and vines, and a few outbuildings in a dilapidated condition. The dwelling-house, however, was in pretty fair order, and after the men had cut a path to it through the shrubs, we took up our quarters there. The place is rather prettily situated on high ground on the south side of the river, opposite a long, wide island of some ten miles in length called Suwaraima. We cut a path to the old stamping mill and

adit mouth, and, after inspecting the former, took lamps and entered the latter, following it to its termination. On the low hill-top, above the adit, are some large blocks of quartz, in parts of which minute lines and specks of gold can be plainly seen; and on the banks of a small stream, at a distance of one mile to the southward, there are the remains of some old alluvial diggings. On washing the sand and gravel at the latter spot we obtained a few minute grains of gold. Some six years before the date of our visit this place was taken possession of by a company, formed in Georgetown, and worked for about three years, but not paying, it was abandoned.

Our men one morning set two strong lines with large hooks attached to wooden buoys in the river opposite the house, and succeeded in capturing two large fish. One, called a lowlow, measured seven feet in length, and when cut up gave enough food to last our men for two or three days. We had part of its flesh salted and part dried on a low wooden staging over a fire. This latter process is called Barbacuing, and meat or fish subjected to this treatment every night will keep for over a week without decaying, but not without losing most of its flavour. The other, called a fresh-water gilbacker or porawarima, was three feet four inches in length. Both these fish were furnished with two long feelers situated on the top of the fore part of the head near the nostrils. Their eyes are small, and it is evident that they feel their way along muddy river bottoms with these long tentacles. The body and head of the lowlow (*Hypophthalmus Dawalla*) is of a bluish-gray colour, while the gilbacker

(*Phractocephalus hemiliopterus*) has a red tail and bluish back with white under parts, the two colours meeting in an abrupt uneven line along the sides.

Numbers of small bats had taken up their abode in the casings of the windows and the roof of the dwelling-house, and kept up an incessant rustle and chirping cry all day and night. They never all went out at a time at night in search of food, but a respectable number was always left at home to squabble and squeak. Upon a shelf in one corner of the room was a gourd, with a long neck and small aperture, which a colony of small black wasps had taken possession of and converted into a home. One of these insects mounted guard at the aperture, and looked quite comical with its head out of the hole, prepared to defend it against all comers. Small ants were in abundance, and overran the whole place, getting into our eatables; while a colony of large black ants had taken up their abode in an old gun-case, in which they nursed their eggs and larvæ. They sallied forth in great numbers, and made themselves so disagreeable that the gun-case, ants, and larvæ had to be thrown out of the window. One evening we were visited by a number of little brown tree-frogs, which climbed up the walls and hopped about the floor.

I enjoyed sitting in the balcony of the Gold Mine house until a late hour, smoking my pipe and listening to the various night cries of bird and batrachian life. There were owls and hawks, whose calls now and then broke on the night with startling effect, and the maam, whose loud whistles, dying away into a series of short notes, had a weird and melancholy sound. The

mosquito hawks, also, would at intervals whistle out their "Who are you" and "Chuck Will's widow" in a plain and anxiously inquiring manner. But most persistent of all in row-producing qualities were the tree-frogs. One kind uttered a most forlorn cry, not unlike the bellowing of a calf that has lost its mother, and quite as loud. These fellows, fortunately, are not numerous, or only roar at intervals from their homes in the tree-tops in the forest depths. Another wretched kind, called burra-bararoo, on the contrary, is very numerous; one specimen, I believe, living in every hollow tree along the river's edges in this and most parts of the colony. They keep up an incessant bellow, sounding like "kronk-kronk," from dusk till daylight, with a pertinacity worthy of a better cause. When camped at a short distance from the river's edge, the "kronking" sounds beat somewhat in unison, and resemble the clang of distant machinery. At first this noise was neither conducive to sleep nor very soothing to my temper when trying to procure my forty winks; but after a time I became so used to it that I was hardly aware of its existence. The burra-bararoo is an ordinary-sized frog, of a pale-drab colour, with a knob at the end of each toe. In the daytime it is the most used-up, sleepy-looking creature imaginable, lying in a quiescent state, with tightly-closed eyes. Tickle one with a twig just enough to rouse it from sleep, and it slowly opens its eyes, disclosing two great, bright, protuberant eyeballs, staring at you with a most startled and astonished gaze. It then quickly closes them again, the light being too much for it, and relapses into slumber. On the last evening

of our stay, the shrubbery around us was lit up by numbers of fireflies. Their sudden appearance would lead one to suppose that a flight of these insects had just arrived, or that a lot had just emerged from the pupa state.

Late in the afternoon of our fifth day at the mine, the boat which we were expecting arrived, and we continued our journey. This boat, like our two tent-boats, was made of a large tree, which, after having been hollowed out, was spread amidships, and had its sides raised by planks. The bow and stern were a good deal higher than the midship portion; the bottom was curved in the form of a crescent. This style of construction renders them safe conveyances in shooting cataracts and rapids, for in so doing, when the boat takes a plunge down a steep dip, it cannot bury the bow under water, but rises buoyantly. Our tent-boats had a space amidships covered with a painted canvas awning, supported on iron stanchions, and furnished with canvas curtains that could be let down at pleasure. All the boats were laden with provisions, consisting of rice, flour, sugar, biscuits, salt fish, and salt pork for the men; and rice, tinned meats, &c., for ourselves.

On arriving at the foot of cataract Payacu, we had to cross the river to find a suitable place to ascend. In doing this my boat got caught in the current, and swept down stream with great rapidity for a short distance, shipping water over its sides. At the foot of a cataract there is always a turbulent mass of surging and eddying water mixed with large waves, which tail off to a point in still water below. These eddying masses are dome-shaped, and are caused by

water that has passed over the bottom of the cataract rising to the surface. On the outer edges of this rushing mass, there is a strong current setting back to the rocks on both sides of the cataract. In small channels the men took advantage of this back current when guiding the boats to the rocks on either side, preparatory to getting out the tow-rope and hauling up.

Near Payacu we met five Ackawoise Indians, in two bark canoes coming down stream. One of our men who could speak their language held a conversation with them, by which we learned that they were on their way from the Yuruari river, in Venezuela, to Bartika Grove, with articles of native manufacture, such as hammocks, a sort of arrowroot, &c. Besides these they had fifteen parrots, tied by the legs to arched sticks. They looked very picturesque in their native costume, which consisted only of a narrow strip of calico passed over a cord tied round the body above the hips, in such a manner that part hung down in front like an apron six inches wide, and part hung behind like a single attenuated coat-tail. This article of dress was called a "lap" by our men. These Indians were true redskins in colour, plump in form, and wore their coarse black hair of great length. Above the Copang river we met another party of Indians in a canoe or woodskin coming down river, who, as soon as they saw us, all, with one exception, landed swiftly on the bank, and disappeared amongst the trees. We soon came up to the spot, and whilst my men were inquiring of the remaining man the whereabouts of the next village, I happened to glance

upwards to the trees close by, and to my astonishment beheld an Indian damsel—one of the late occupants of the canoe—perched amongst the foliage some ten feet from the ground, where she had evidently gone to observe, but not to be observed.

The bark canoes used by Indians are called "woodskins" by the Creoles, and are made of one piece of bark, stripped from a tree called the purple-hear, (*Copaifera publiflora*). The bark of the locust tree or simiri (*Hymenæa courbaril*) is also sometimes used. This bark is from one-eighth to one-fourth of an inch in thickness, and very heavy, being of greater specific gravity than water; so that in the event of the canoes shipping water to any extent, it sinks immediately, leaving its occupants to find their way ashore.

They are ticklish things to travel in at first, and to stand up in one, until acquainted with its freaks, is a dangerous experiment, ending in an undignified exit over one side, the canoe shooting away in the opposite direction.

To make one of these woodskins, a large purple-heart tree is cut down, and the bark of the requisite length taken off. A wedge-shaped piece is then cut out of the trough-shaped bark, from the top downwards, at a distance of three feet or so from both ends on each side. The ends are then raised till the edges of the cuts meet, when holes are pierced on either hand, at a distance of six inches from the cut, and numbers of turns of a strong withe or liana, called Mamurie, passed through them and made fast in a neat manner to a small round stick placed along the inside. Two strong pieces of wood fastened across at

the splits prevent the sides from closing in. The ends are then trimmed down level with the sides, and a ticklish but serviceable little craft is turned out. The seats are made of curved pieces of the same bark, and are very low. The whole process of making one of these woodskins, including the drying of the bark, occupies a space of three weeks. In this period must, I think, be included some loss of time from laziness on the part of the Indian canoe builder. Woodskins vary in size, but usually are from fifteen to twenty-five feet in length, and an ordinary-sized one will carry three or four people with their hammocks and provisions.

The absence of visible mammal life was very striking in this region, though there could be no doubt that the forest bordering the river abounded in game both large and small, such as tapir, deer, wild hog, labba, accourie, &c., for their tracks were numerous. The sound of the paddles against the sides of the boat, and the talking of the men, would no doubt scare them, and cause those near the river's edge to seek the depths of the forest.

By day we saw two or three species of kingfisher, two kinds of small swallows, hawks, the red-headed vulture, and the curi-curi or river ibis; whilst in the morning and evening scattered bands of screeching parrots crossed the river, going to and returning from their feeding grounds. The river ibis (*Ibis infuscata*) gets its name of curi-curi from its cry, which resembles that word repeated a few times. When they utter their cries in the evening, the natives say it is a sure sign that rain will fall during the night. They are not quite so large as the beautiful scarlet ibis in-

habiting the coast region, and are of a dull olive-green colour, with light-green bills and legs. They drill holes in the mud-banks with their long bills for worms, feeding after the manner of snipe.

From a long straight reach of the river we obtained a distant view of a range of hills called Waikuie, and near its end, on the south bank, arrived at the landing of an Indian village called Weynamou.

Taking Peterson with me I started from the Weynamou landing and walked to the village, which consisted of four or five palm-thatched houses with open sides, situated in a clearing, in which dwelt some Ackawoise Indians.

I was struck with the manner in which the men of the place wore their hair, allowing it to grow long and fall far below their shoulders, giving them a very feminine appearance. The head man had his hair bound round at the end with cord in such a manner that it stuck out at a right angle behind. The old fellow's corporation projected in front quite as far as his pigtail did behind, and gave him a most ridiculous appearance. Neither men nor women had eyebrows, having, according to Indian custom, plucked them out. Their upper lips and both sides of the mouth were tattooed with blue curved lines. The dress of the women was exceedingly simple, consisting only of a small cotton and bead-work apron, made fast to a cotton cord round the body above the hips. The apron, called a "queyou," is manufactured by the wearer in a most ingenious manner, each bead being slipped on the cotton thread in its proper place as it is being woven. The patterns of these dresses are

marked out with red, blue, and white beads, and they generally have an ornamented border.

Finding that we could carry all the remaining provisions in three boats, we sent the "Cataboo" and her crew of six men back to the Settlement, and continued our journey up river.

On the afternoon that we reached Wakupang cataract we had a heavy rain storm, accompanied by thunder and lightning, which lasted for two hours; and on nearly every remaining afternoon of our stay on this river we had similar heavy rainfalls. The nights and forenoons were fine, but in the afternoons great masses of dark clouds spread gradually over the sky, covering it, as it were, with an inky pall. Out of the dark clouds came flashes of lightning followed by heavy peals of thunder, and then came a strong breeze bearing with it a storm of pelting rain. This would last for an hour, and by that time the storm had passed over to another tract of country, leaving a slight drizzling rain behind. Then the sky would become clear overhead, and the sun set in most magnificent golden and crimson clouds. These rains saturated the ground with its covering of dead leaves, making our forest camping places damp and noisome; while the drip from the leaves overhead lasted for a considerable time after the shower had passed away.

Our supply of farinaceous food had by the time we reached the mouth of the Appa river decreased considerably in quantity, and it became necessary to purchase all we could get, in the shape of cassava bread, from the Indians living in the neighbourhood. Therefore, when we arrived at a landing place a little

beyond the Marupa river, we proceeded to the village to induce the people to prepare some for us. On arriving at the place we found only two temporary huts, situated in an old plantation, partially overgrown with shrubs, vines, and weeds, and occupied by one man, four women, and five children. This man had come from his place higher up river to gather the remaining cassava roots (*Janipha Manihot*) in this old plantation. His wife spoke English, having been brought up at Bartika Grove, and wore clothing in the shape of a loose cotton gown. She said that her husband's name was Edward and her's Caroline. Edward was in a most delightful state of extreme subjection to her, and appeared to consult her in everything. One pleasing feature in the British Guiana Indians is that, as a rule, they treat their women well, evidently looking upon them as equals, and not making slaves of them as is the custom of many other wild tribes. These people promised to make us some cassava bread, for which we had to remain a day, the process of manufacture of that article being a rather slow one. The Indians take the roots of the cassava, peel them, and then grate them on boards called Tumaries, into which small sharp angular pieces of felstone have been inserted. After this, they place the grated mass in a long cylindrical basket-work tube, called Tenge or Matapi, by which all the poisonous juice of the cassava is got rid of, leaving a white coarse meal behind. This meal is sifted through a basket-work sieve, then spread upon a large flat stone or iron pan placed over a fire, and baked. Only half a minute is taken to bake a cake two feet in diameter and a quarter of an inch

thick—the usual size of cassava bread of Indian manufacture. The heat has the power of making each grain adhere to those around it, thus forming a firm and exceedingly nutritious cake. Eaten just after it is cooked—when still warm—it is palatable, but, if kept till the following day, it becomes tough and almost tasteless. On the contrary, if dried for a few hours in the sun upon the same day that it is cooked, it becomes hard and crisp, has a sweet nutty flavour, and will keep for months.

During our stay Edward went with one of our men to procure some game for us, and returned with three fine labba (*Cœlogenis paca*). He had two dogs of true Indian breed, most unlikely-looking black-and-tan curs, and, though larger than bull-terriers, appeared to have some of that breed in them. One was a weak creature with plenty of prominent ribs, and a white film over each eye nearly obstructing its sight. This film is frequently seen on the eyes of hunting dogs, and is produced by injuries received from blows of twigs and vines, when rushing headlong through the undergrowth on the track of game. Indians take great pains in training their dogs, and have some taught to follow deer, others labba, and some only to hunt the tapir. Other dogs, whose education has been partly neglected, will follow the track of the first animal they come across, and this, in nine cases out of ten, turns out to be a small rodent, about the size of a rabbit, called the accourie (*Dasyprocta aguti*). The flesh of this rodent is not very highly esteemed when better is to be had, especially as it is never in good condition. Our men had a saying, that the accouries

are fat the same year that the bamboo blossoms, an occurrence which, they say, takes place about once in forty years. The flesh of the labba is considered the most delicate of all bush animals, and is therefore much sought after. This animal is also a rodent about the size of a hare, but with a stouter body and rat-like head. It is nocturnal in its habits, spending the day in its burrow under tree roots near the edges of rivers. These sleeping chambers are not very long, and have two entrances. The huntsman rams a thin pole in at one end, which startles the occupant, causing it to fly precipitately from the other, like a ball from a cannon, closely followed by the dog. The labba, when close pressed, takes to the water, and whilst swimming is hunted down by the Indian sportsman in his woodskin. Sometimes the animal escapes by diving, and hiding amongst fallen brushwood on the river's edge, but more frequently falls a victim to the arrow of the Indian.

The people of the place brought out to our camp the cassava they had made, together with some plantains and a bottle of crab oil, all of which I paid for with articles of barter from our store of "negotiæ," consisting of beads, calico, knives, pins, fish-hooks, powder, shot, &c. The crab oil, which is made from the seeds of the crabwood tree (*Carapa Guianensis*), I used for the boat lamps, in which it burnt well, giving a good bright light. They also brought out their hammocks and provisions, packed in basket-work affairs, called Urutehs or Cartoweries, and covered with plantain leaves to keep off the rain; and announced their intention of travelling in our company

to their village Their provisions consisted of cassava bread, barbacued fish and game, and the everlasting pepper-pot. The Indian woman who heads a household has charge of the earthenware pepper-pot, the contents of which consist of red peppers boiled with cassareep and water into a sort of fiery soup. Into this they dip their cassava bread before eating it, and thus obtain a highly-flavoured relish. Sometimes fish or game is boiled with the peppers. Cassareep is made from the poisonous juice of the cassava root, boiled down to the consistence of treacle, and has the property of preserving animal substances boiled in it for a length of time, besides giving them a very pleasant flavour. Indian pepper-pot would not be bad if those fiery hot peppers were not put in with so heavy a hand.

After camping one night two of the men went a short distance up river to shoot fish, and soon returned, bringing two Indians with them, whom they had found with a party encamped on a sand-beach. They were of the Ackawoise tribe, and one spoke a little English and Dutch. This man had a piece of reed passed through a hole in the cartilage of his nose, and two similar pieces through holes in the lobe of each ear, the ends of which rested on the ends of the nose piece. With these ornaments, and stripes of red paint on his face, he looked, by the light of the camp fires, a smart sort of a savage. I asked him to go with us as guide to the Puruni, to which he readily assented. He asked for salt fish and "cavendish tobacco," and soon after returned with his companion to their encampment.

That night a small variety of termites or wood-ants took possession of everything that we had brought on shore, and in the morning I found my hat swarming with them. They usually live in large round nests, which they build of a brown earthy material in the forks of tree branches, or on the sides of tree stems. From these they build covered ways leading in all directions, and bore chambers through dead wood and dry tree branches. At night they sally forth in great bands, seeking what they can devour, and, if they get into a canister of provisions, build their nasty covered ways all over its contents.

When we continued our journey in the morning, we stopped for a short time at the Indian camp. This was composed of two small temporary huts, called Banaboos, made of poles stuck deeply in the sand, with palm-thatched roofs; the poles were firmly lashed together with lianas or "bush-ropes," made of the pliant woody stems of climbing vines, seen at every turn in the forest, twining round the stems of trees or hanging in fantastic loops from their branches. Some of these are brittle and cannot be tied in knots, whilst others are very pliant, and when twisted till their bark cracks, will not break when knotted. To the best kind of bush-rope the name of mamurie has been given.

There were eight Indians at the camp, amongst whom was my friend of the night before, who, with a boy, was ready to accompany us. But how different he appeared in the daylight to what he did in the dim firelight the previous night. His naked body was now seen to be covered with patches of a skin disease very

common amongst Indian tribes, which gave him an exceedingly mangy appearance.

We reached Otomong creek in the forenoon of the 24th of September, and after exploring Otomong hill, commenced our return journey. The water of the shaded creek was so cool, in comparison with that of the Cuyuni, that I tried the respective temperatures of each, and found the former to be 78° Fahr. and the latter 88°, the temperature of the air in the shade being 85° and in the sun 110°. The cool nights at this time of year do not lower the temperature of the water more than two or three degrees, so that in the early morning the air is much cooler than the water, and one is not the least refreshed by a bath in the river at that time.

On approaching the head of the first cataract in our descent, the bowman and steersman both stood up, and gazing intently down the long slope of foaming water, agreed upon a joint course of action. The word was then passed to "give way," and the boat bounded forward under the strong, steady strokes of the six paddlers. It was an exciting moment to me as the boat, impelled by the paddlers and the rush of water, dipped over the smooth brink of the cataract and flew along the short slope of water where it was commencing to foam; then was half submerged in a set of short, high waves, each of which gave it a heavy blow that shook it from stem to stern; and finally was shot out of the great surging body of water into the still pool below.

Whilst shooting a cataract the bowman keeps a sharp look-out for rocks, and guides the bow accord-

ingly, skilfully aided by the steersman, who can tell by the slightest movement of the bowman's paddle which way he is required to work his own, so as to give the former every assistance and at the same time keep full control over the boat. The large channels are generally free from sunken rocks, but the great dip that the boat takes in descending causes its bow to be buried under water for an instant, and the great danger to be apprehended is in shipping water. In the narrow channels, where the water is shallower, there is danger of running upon sunken rocks. Their slope is much longer than in the larger ones, and often at the foot of one the boat rushes headlong to the top of another, and away down it at great speed, the bowman and steersman working hard to keep the boat under command, and the paddlers pulling like fiends with strong, quick strokes.

When we met with a cataract too steep for the boats to run in this way, they were lowered down in shallow water by the tow-rope, two or three men wading alongside, the others holding on by the rope and lowering slowly.

We passed a place one afternoon where the river was studded with high granite rocks, two of which rose ten feet or so above the level of the highest floods; their upper portions covered with a white *lichen*. Our guide, Edward, knowing of their existence and of some superstition connected with them, turned his head away and would not look at them. Eruma, one of our Caribs, took some tobacco, and dipping it into the water leant back and squeezed the juice into his eyes, and as soon as the tears thus produced had subsided

he calmly gazed upon the rocks. By this procedure he proved himself to be a peaiman or sorcerer, as no Indian, not having gone through the severe ordeal entitling him to be such, could have gazed on these rocks without imagining that some great evil would befall him.

When we reached the path end leading to the Puruni we landed and formed a camp. I went down to the village of Cicimong to get some cassava bread that the Indians there had promised to make for us, and found the only occupants of the place to consist of an old man, a lot of women, and one young man. The old man was very feeble, and when I entered his house was reclining in his hammock. He arose from it immediately after my entrance and went to a basket containing his treasures, such as iron arrow-heads, balls of cotton, &c., and began to fumble amongst its contents. I left him thus employed, and went out to one of the other houses to pay for the cassava, when one of the men came and told me that the old man had just died. He said that the poor creature had got back into his hammock, stretched himself out, turned his head on one side, and with a deep sigh breathed his last.

On learning that the old man was dead, only one of the women showed the least concern, and she merely went to look at him, quickly returning with tears in her eyes. The others went on with their various occupations as if nothing had happened, seeming quite unconscious of the fact that a spirit had passed from amongst them to its long rest. Two of them were engaged in the disgusting operation of chewing

up toasted cassava bread, and spitting it into a large pot simmering on a low fire, the first step in the production of their great national beverage called Paiworie. In the pot was some cassava juice diluted with water. They boil this mixture for about twelve hours, and then put it in earthen jars, where vinous fermentation takes place. As soon as that ceases it is ready for use.

The young Indian above mentioned was worn away to a mere skeleton, the effects, he said, of some poison secretly administered by an enemy. His eyes were large and preternaturally bright, and it cut one to the heart to see a fine young fellow like that lying patiently awaiting his early doom at the hand of the most cowardly of all murderers, the Kanaima or secret poisoner.

Returning to our camp, we made preparations for our journey overland to the head of a branch of the Puruni, called Cartoonie, where we were told we should find Indians to take us in woodskins down that river to the Puruni, and on down the latter river to the Mazaruni.

Each man made a basket of green palm leaves, in which he placed and lashed his load. This basket of peculiar construction is open at the top and back, and is called a "waiarie." It is strapped on the man's back by three bands made of the under bark of a tree. Two of these bands are tied on in such a way that the man's arms can be passed through them, which causes the weight of the load to rest on the shoulders; this means of support is chiefly used when halting. The true support is the third band, which is fastened to the top of each upper corner of the flat back of the basket,

and passes across the carrier's forehead. With the pack thus suspended, fitting flat to the back, a practised hand bends well forward, and goes along through the bush-path at an astonishingly quick pace. These waiaries, being made of green leaves, soon wither and break up. Indians, as a rule, all possess good, strong load-baskets of a similar shape to waiaries, called cartoweries, made of cane-work strengthened with pieces of wood, which last for months.

CHAPTER III.

DOWN THE PURUNI.

March out of Camp — Indian Path — Ticks — Camp in Forest — Tricked by Guide — Fleas and Jiggers in unoccupied House — Mogoose — Wind Storm — Start down Cartoonie in Canoes — Otters — Get jammed under Log — Humming-bird Nests — Reach Puruni River — Maam — Stung by Ants — Kill a Capybara — Scorpions — Reach the Mazaruni.

ON Sunday, the 27th of September, we commenced our march through the gloomy forest, along a narrow Indian path, with the mangy Indian, whose name was Joseph, for our guide. We certainly were a motley crew as we filed off one by one out of camp, twenty-five in number, leaving only two men behind to take care of the boats. There was the guide in a blue-striped shirt, his only article of clothing; there were two Indians, whom we had hired, dressed in nature's garb, barring the "lap"; and there were our men in white singlets, osnaburg trousers, felt hats, and bare feet. As for Mr. Sawkins and myself, we were dressed in the lightest costume.

Our way lay over a slightly undulating country, traversed by small brooks and medium-sized streams, and covered with a forest of the highest possible growth. The enormous spreading tops of the giant trees, meeting together above, completely excluded the direct rays of the sun, leaving only a subdued

light around us amongst their stems. Beneath the large trees were others of smaller growth, the progeny of the former, growing slowly up to treehood, and struggling hard in the deep shade for existence. Then beneath all this there frequently came a third growth of still younger trees, ranging from six inches to six feet in height, placed close together. The tree stems and branches were clothed with a profusion of parasitic plants, mosses, and ferns; while huge snake-like forms of vines and creepers encircled them, or hung gracefully in festoons from their tops. No grass grew in the deep shade of the forest, but a thin covering of decayed leaves and rotten tree branches strewed the soil. At distances of every fifty yards or so lay the stem of a tree, decayed and moss-grown, ranging in diameter from one foot to four feet, or more. In hurrying along we had to be continually climbing over one of these huge trunks and stepping upon slippery tree-roots, which made our walk a tiresome proceeding. There was a great sameness in the restricted forest views, one glade being like another, and fifty yards of the path like every other fifty yards. Where there was no undergrowth the walking was not so bad, but where it prevailed to any extent it grew so close on either hand that we were brushed by its branches as we passed along, gathering a few spiders, ants, and caterpillars on our necks every now and then, and, what was still worse, a tick or two at intervals. Of all the horrible insects in the forest that tap the human claret, the ticks (*Ixodidæ*) are, without doubt, the most loathsome. They are of all sizes, from a pin's point to a shirt button, and all bite most

viciously. A small kind, called "Bête rouge" by the Creoles, is very troublesome; it is the counterpart of the English harvest bug.

On the first night of our journey we camped on the banks of a little stream, in the cool water of which I took my usual evening bath, had dinner, and a pipe or two before turning into my hammock for the night. The men hung their hammocks in a group about twenty yards from ours, and being weary after their day's tramp did not talk much, so that soon after 8 P.M. quietness fell upon the camp. Intense darkness reigned around, for the camp fires soon burnt out, and then I fully realized the boundless extent of my bedroom as I peered round into the thick blackness before falling into a deep sleep.

Awaking at daybreak next morning, I jumped out of my hammock, finding all the camp astir, the men letting loose hammocks, packing up loads, &c., and the cooks boiling coffee for us and hot water for the men. The meal for the men at this time of day consisted of two ounces of sugar, with which they sweetened their hot water, and a piece of cassava bread or a biscuit each.

Every man being ready, the guide went to the front, and the march was resumed. On, on, we went along the winding path, brushing against dew-laden undergrowth, over fallen trees, across little streams with a hop, and over large ones on slippery logs, upon which we could with difficulty balance ourselves. In three hours after leaving camp we marched out of the forest into a small clearing, in which an Indian house, the home of Edward and Caroline, was situated.

They had come home the day before, and we now found the latter busy with her household duties, while the former reclined gracefully in his hammock. Off went the men's loads, and down we all squatted to rest and dry ourselves in the sun. Here we regaled ourselves upon a small forest deer, called Wiriebiserie (*Cervus humilis*), which Edward had shot. This animal is of a reddish-fawn colour, with white spotted flanks, and has two short, straight horns.

The path from the Cuyuni to this place was well beaten and distinct, but beyond this it was the faintest trail imaginable. We prevailed upon Edward, after much persuasion, to come and show us the track. Away we all went again, and plodded on for two or three hours, coming to a small stream, at which Edward stopped and informed us in a most positive manner that it was the last place at which we could get water that night, and that we would have to camp. It being out of the question to camp anywhere except in the vicinity of such a necessary article as water, we did so, though it was at such an early hour. Edward then disappeared from our midst, and we never saw him again. Next day, when we continued our journey and passed over stream after stream, we saw how thoroughly we had been "sold" by that wily savage. The fact was that he did not like to refuse to guide us, and therefore came; but, wishing to get back to his house that same night, he concocted the story of the scarcity of water to induce us to camp early, and thus give him time to retrace his steps before night set in.

With Joseph as guide we found our way with diffi-

culty along the faint trail till we crossed a large stream — the Cartoonie — where we struck a well-beaten path, and soon after came into a large clearing of many acres in extent, in the middle of which was a small village of three houses. In these were seventeen Indians of the Ackawoise tribe, who seemed rather astounded at the sudden advent of our party amongst them.

As the village houses were small we did not take up our quarters in them, but camped on the edge of a stream in the forest, on the path beyond. Henry Cornelius, one of our bowmen, acted as interpreter, and explained to the Indians that we wanted them to take us down to the Mazaruni river, to which they assented, promising to go to the next place to procure woodskins for the journey.

On the following morning we sent back most of the men to the boats to take them down to the Penal Settlement for a supply of stores, with instructions to rejoin us at a village called Cowenamou, on the Mazaruni river. Our three Caribs accompanied them to the boats for the purpose of bringing back three loads of stores. The morning had broken dull and cloudy, and rain fell steadily all day; we were therefore confined to the restricted areas under our small canvas awnings, where we spent a dull and gloomy day. The dull stillness of our camp after the departure of our band of men, broken only by the ceaseless drip of rain upon the sodden ground, made our situation anything but cheerful. Our party of retainers now consisted of only five individuals, viz. Vincente, a Portuguese; Cameron, a mulatto; Ben, an

Arowaak; Pedro, a Spanish Arowaak; and Joseph, an Ackawoise. When I turned out next morning, finding the rain still falling, I made up my mind to go up to the village and "pig" with the savages—anything would be better than remaining in that dismal swamp. Just then Ben returned from a voyage of discovery along the path leading away from our camp, with a joyful expression of countenance betokening good news. "Why, sir," he said, "there is a good house not far off, and it taint got no one in it." I immediately went with him to see it, and, plodding through mud and water, climbed a slight eminence to a large open shed, situated in the midst of a clearing. I halted close to it, and proposed that he should take a look at the floor for insects. He walked boldly in, hesitated, looked down at his bare feet, and exclaiming, "Jiggers and dog fleas full da here," fled precipitately. I may here mention that the jigger or chigoe (*Pulex penetrans*) is a small flea that burrows under the toe-nails, where it forms an egg-bag almost the size of a small pea, which has to be extracted with a needle, an operation giving a considerable amount of pain.

I remarked to Ben in a casual way, "Surely the natives have some way of getting rid of these insects; just think the matter over in your mind, and don't lose sight of the fact that it depends upon you whether we sleep in the moist swamp to-night or under this good roof." He proposed two ways of performing the operation, one was to "bun them," as he called it, and the other was to sweep them out. I seized upon both ideas; we would burn them first, and sweep out their roasted carcasses afterwards.

Fortunately there was a heap of dry palm leaves in the house, of which a few bunches were made into brooms, and the rest scattered over the floor. If anyone had been looking at us from a short distance when performing this operation, he would have come to the conclusion that we were both demented, from the way in which we skipped about, darting out every now and then to brush off our enemies from our clothes. Then we set fire to the leaves, and had the whole place covered with flames a foot in height—a grand and satisfactory though short-lived flare up. At this stage of the proceedings we were reinforced by Pedro and Vincente, who on the subsiding of the flames swept out the residuary matter, composed of carcasses, ashes, and dust. After the crusade was over, a few hundreds of the enemy were left, but these we did not mind. It is a curious and sad fact, as I have always found to my cost, that when Indians leave their houses for a time the dust on the floors becomes infested with jiggers and fleas. The former come from the eggs dropped from the jigger egg-bags in the toes of both Indians and their dogs, and the latter from eggs dropped by the fleas of the dogs.

We then had all our effects taken to the cleansed house, and were in complete possession of our new abode. By midday the rain had all passed away, and the sun shone brightly. In the cassava clearing I routed a troop of gray monkeys (*Cebus apella?*), and soon after saw some more in a grove of trumpet trees (*Cecropia peltata*), close to the house, where there also was a lot of large toucans (*Rhampastos toco*), and a beautiful fire-bird (*Phœnicircus carnifex*).

The following morning was foggy from six to seven o'clock; but there was a fresh, invigorating feeling in the air which made one feel cheerful, and ready for any amount of work. Soon after the fog vanished, and the sun came out. As he rose higher and higher the inclination for bodily exertion became feebler, and disappeared entirely by the time he had gained the meridian. Those early mornings in the tropics were delightful, and the remembrance of them makes me sigh for them as for "the touch of a vanished hand." Numbers of small birds visited the low cotton (*Gossypium*) and papaw (*Carica Papaya*) trees planted in the vicinity of the house, in the early morning, and were very tame. Amongst these were cashew birds, blue sackies, tompitchers (*Saltator sp.*), and quaquaras (*Thamnophilus sp.*), all insignificant-looking, but very lively birds. The two last mentioned whistle loudly, producing sounds from which they have derived their names.

At noon the two Indians, who had gone on to Cartoonie creek, returned, and said that they had procured woodskins for us. They brought an old man with them, who was the owner of the house we occupied, and who, now appearing in the character of visitor to those so coolly inhabiting his domicile, was made welcome accordingly. That evening they commenced a "grand paiworie" at the village, drinking their national beverage, and dancing all night long. Next morning they visited us in a body, all looking more or less seedy from their night's debauch. Their bodies were daubed with red paint made from the Arnotto seeds (*Bixa orellana*), and dyed with pat-

terns in black, produced by the juice of the fruit of the lana tree (*Genipa Americana*). Nearly all wore anklets and armlets of white or blue beads, besides other ornaments, such as necklaces of peccary and labba teeth. They were exceedingly honest, and though they handled and examined everything they could lay hands on amongst our baggage, they restored each article to its place again. One man, named Mogoose, who was to be our guide down the Puruni—an intelligent-looking fellow, with an open, smiling countenance—got hold of a piece of newspaper from amongst our things, and pointed out to me the letters S, O, and E, which he named correctly. He then repeated the letters of the alphabet, omitting, however, a letter here and there, for which he substituted one of his own. He became a great nuisance, inducing me to read aloud a line of the newspaper, which he repeated after me. Like a parrot, he could pronounce the words without having the remotest idea of their meaning. Joseph informed me that Mogoose, when a boy, had spent some time at Bartika Grove, and had then gone to school.

Late that afternoon our Caribs returned with their loads, and brought the intelligence that our men had started on their voyage down the Cuyuni.

After a short walk next day, over a swampy tract of country, we reached a new clearing, planted with young cassava, and, going on a short distance, came to the creek where our woodskins were moored. There we camped on a slight rising ground, and a little before dusk were visited by a storm of wind and rain, with thunder and lightning. The wind blew so

violently that numbers of large trees in the neighbourhood came crashing to the ground, while one flash of lightning struck a tree close by. It was utterly impossible, in the midst of such din and danger, to remain under my awning, in case a tree should come upon it like a deadfall. I therefore stood out in the storm, with my servant, watching the swaying trees around us, ready to bolt should any near give signs of coming down. An old dead tree close by leant in the direction of my awning, and had it come down would have demolished my nightly shelter; but, not having leaves to catch the wind, it fortunately withstood the fury of the blast.

Next morning the whole party, with stores and baggage, were stowed away in five good-sized woodskins, four of which contained our party, while the fifth carried two men with their wives and children, who appeared to be only going to accompany us to the next village. My canoe was manned by one of our Caribs, named Yackarawa, who sat near the bow, and Ben, who sat aft, and both paddled and steered. The Cartoonie, being a narrow stream, large trees had fallen across it in many places, obstructing the passage of the woodskins. These large dead trees are called "Tacoobas," and are the curse of narrow rivers. Some lay across from bank to bank, and left room for us by stooping to pass beneath, while others lying half submerged formed perfect bars across the stream. Over these we had to haul the canoes, after landing their loads on the bank, or on the log itself. Thus our progress was greatly retarded, and became tedious and monotonous to a degree as the day wore on.

We passed a red cliff and hill on one side of the river, where Mogoose informed us there was a colony of wild dogs. Ben told me that they were of small size, with drooping ears like a lapdog's, and of a brown colour. They live in burrows in the ground, and bark like dogs. As I did not see them I cannot speak positively as to their identity, but believe them to be the South American wild dog (*Canis Azarae*). Late that afternoon we reached the landing of a place called Ositiquah, where we camped for the night, our guides going to the village to sleep. Some of our men went there also, and, on returning next day, told me that the people had kept a kind of wake during the night over an old woman who had just died, and about midnight they all had a pepper-pot feed. They came out to camp, accompanied by eighteen villagers, who brought provisions for sale. The Indians who had accompanied us, with the exception of Mogoose and another man, remained at Ositiquah; and after we had paid those to whom the woodskins belonged for their hire we continued our journey.

We frequently came up with parties of otters (*Pteronura Sanbachii*), composed of from five to eight individuals, which tried to dispute the passage of the river with us. They used to approach the canoes, and, all popping their heads out of water together, would snort and snarl as if trying to intimidate us. Seeing that our advance was not to be checked, they took long dives away, and quickly disappeared beyond a bend in the river, to be seen no more. They were of a brownish colour, with a patch of white under the throat. I could not resist the temptation of having a shot at one

occasionally, but never could tell whether it took effect, for, as they always disappeared beneath the surface at the instant of the report, it was difficult to say whether they had dived at the flash or were killed and sank to the bottom.

On one occasion, as I was eagerly endeavouring to get a shot at one of these animals, we did not observe a log lying across the river, only about two feet above the surface of the water, to which the canoe was borne by the force of the current, till we were close to it. I had just time to deposit my gun in the bottom of the canoe, and duck my head as we went under it, before either of my men had time to check our way. The log was lower than it looked, and as my seat was higher than that of the Carib in the bow, he just passed under while it caught me on the back of the neck, as I leant forward with both hands on the gunwale on either side, giving me a heavy blow and bringing the woodskin to a dead stand. There I was jammed hard and fast, unable even to move my hands from the sides of the canoe, over which the water poured, threatening to sink us. In this helpless state the thought flashed through my mind that nothing but the sinking of the canoe could extricate me, and though by this I should lose all my worldly goods, yet anything was preferable to the nightmare sort of condition I was in. Bent down as I was, I could not make my voice heard as I tried to shout to Ben to shove the woodskin back. He, meanwhile, had left his seat and was doing his best by pushing the end of his paddle, with all his might, against the log. His endeavours, facilitated by the settling down of the

canoe, which eased the pressure of my back against the log, were eminently successful, and we were happily extricated from our perilous position. We set to work to bail out the water as rapidly as possible, being just on the point of sinking; and when this had been accomplished, and the pain in my back had subsided, we enjoyed a hearty laugh over our mishap.

On our third day's journey we landed at a hilly range abutting on the river, and ascended it to a height of 800 feet above the sea. The foliage of the magnificent trees, with which it was crowned, obstructed our view of the surrounding country; but through gaps here and there we obtained glimpses of high ranges, looking of a pale-blue colour, in the distance to the westward. Upon the ground, beneath a large tree, we obtained some small-sized fallen fruit, which had an acid flavour, was of a yellow colour, and somewhat resembled the sappodilla (*Achras*) in structure. The Indians showed us the milk tree (*Tabernæmontana utilis*), from an incision in the bark of which we obtained a good flow of thick, white, creamy sap, of a rich nutty flavour, but a little of it went a long way. The tree was large, its stem perfectly cylindrical in form, without any root buttresses, and its bark of a dull, blackish colour.

Small singing birds were very numerous along the edges of the river, which trolled out their songs late of an afternoon, before seeking their perches for the night. Humming-birds, of four or five varieties, were frequently met with; some were exceedingly bold and pugnacious, following us for short distances and poising

themselves close above our heads for a few seconds at a time, as if resenting our intrusion upon their domain. On two places, where a wild fig (*Clusia alba*) had grown upon the branch of a dead tree, which rose above water in mid-stream, I saw the beautiful little nest of the king humming-bird (*Trochilus pella*). They were made of the yellow silky substance which surrounds the seeds in the pod of the silk cotton tree (*Bombax ceiba*). We also saw a small kind of grebe (*Heliornis Surinamensis*), ducklars (*Plotius anhinga*), curicuries, tiger-birds, and two species of kingfisher. There were two kinds of tiger-birds (*Tigrisoma tigrinum* and *T. Brasiliense*), one of a light brownish-yellow colour, with black bars across each feather, and the other of a dark brown. They utter their call, which somewhat resembles that of the jaguar, early in the morning and late in the evening, and thus have obtained the name of tiger-bird.

In the evening of our fourth day's journey in woodskins, we left the turbid water of the Cartoonie and entered upon the clear, black water of the Puruni, immediately above a fall called Pyuca. Next morning our stores were carried to the foot of the fall, and the woodskins dragged over the rocks a distance of some sixty yards. This fall is not high, but very picturesque, as the water is precipitated almost perpendicularly over a mass of jointed greenstone. On looking back, after leaving it, I observed two Indians bringing a woodskin over in great haste. They soon caught up to us, and turned out to be a Cartoonie Indian and his wife whom we had left at Ositiquah. They had a very light load in their canoe,

and had come along more rapidly than we had. On joining us they produced a large gourd containing paiworie, and distributed a few calabashes of that horrid liquid amongst the men, who swallowed it with great gusto. Our guide, Joseph, was transferred to the newly arrived Indian's canoe, and in the afternoon had a few high words with its occupants. Rising up suddenly, the owner seized Joseph by the shoulders and gave him a good shaking. The latter, though much ruffled, did not resent the insult, and about an hour afterwards both were apparently as good friends as ever, drinking paiworie out of the same calabash. We arrived at the landing of a recently deserted village late that afternoon and camped. On approaching the place I heard a curious loud purring sound, which seemed to come from the bottom of the canoe, and, on inquiring the cause, was told by Ben that it was produced by a fish which congregated in numbers in very deep parts of the river.

At another village landing we purchased a large Maam (*Trachypelmus subcristatus*) from some Indians; the sides of the head appeared to be marked with vermilion pigment, but upon close examination I found that this colouring was produced by clusters of that minute insect pest, the bête rouge. At this place I observed a tall, straight sapling, with a regularly arranged style of branches in one or two sets near its top. Taking a machette or cutlass, I gave the tree a blow, with the intention of cutting it down, and was in the act of raising my hand to deliver another, when I received two or three sharp stings on the back of the neck, which felt like sparks of fire, and produced such

a demoralizing effect upon my nerves that I dropped the cutlass and fled. I hastily raised my hand to my neck and seized two or three long-bodied, amber-coloured ants, which had been dislodged from the tree by the jar produced by the blow and had fallen upon me. These ants always inhabit this kind of tree, living at the base of its leaf stalks. The pain did not entirely leave me for over an hour after, and made me feel exceedingly ruffled and wroth.

One afternoon, as we were paddling quietly along, three water-haas (*Hydrochœrus capybara*) leaped from a low bank into the river close to us and disappeared under water. We pulled hastily to the spot and awaited their re-appearance. One came up to breathe close to Mogoose's canoe, and his companion fired at its head—the only part visible—but without effect. The next time it came to the surface close to a low mud-bank, upon which it landed, whilst we were all looking out in quite another direction. We saw it making off at a heavy lumbering gallop for the bush, just in time for me to get a shot at it with my trusty breechloader. The charge of BB-shot lodged in its shoulder, breaking the upper bone of one fore-leg. It fell with its head towards the river, and, floundering about a little, took to the water again, but in such a thoroughly exhausted condition that it was captured and killed by the Indians with little trouble. It was an exceedingly large specimen of its kind and very fat. The men ate portions of it with evident relish. I tasted a piece, and thought it was about the rankest particle of food that ever passed my lips.

That evening, whilst camping, Vincente was stung

in the foot by a black scorpion, and suffered a good deal of pain. He came to me immediately after, trembling from head to foot, as if suffering from ague, and his face was quite bloodless. I gave him a strong dose of ammonia, which afforded him almost instantaneous relief. There are two kinds of bush scorpions to be found under the dead leaves and decayed logs in the forest. One kind is very large and black, with two short clavate claws, shaped like those of a lobster; its sting is dangerous, producing fever, vomiting, and intense pain. The other is a small, almost harmless thing, of a pale drab colour, with long pointed claws. Its sting is not more painful than that of a wasp.

I had a small tin case, shaped like a sandwich-box, with a layer of cork in the bottom, in which I pinned any curious insects met with. One night our camp was not far from the large earth mounds of the cushi ant (*Œcodoma cephalotes*), and a band of these creatures got into the insect case, deposited their loads of earth, and then set to work to destroy all my small but choice collection in the most heartless manner. They were unable to carry off the insects, after cutting them up, owing to the curved shape of the sides of the box preventing their egress, and were thus neatly trapped.

On October the 13th we passed over a portion of river where it flowed through a hilly tract of country, and obtained some fine views of wooded hills, varying in height from 500 to 800 feet. We also ran down some small rapids, which was rather dangerous work in our frail canoes. The river occasionally received the waters of a small tributary here and there, and gradually widened out to 60 yards. Its water lost its

black cast as we proceeded, and at last became quite turbid, flowing in an exceedingly tortuous course. Next morning we arrived at the landing of a village called Wahmatta, where Mogoose and friends, after providing us with a man and boy as guides to Cowenamou, were paid for their faithful services, and set out on their homeward journey, whilst we continued ours towards the Mazaruni river. Passing a few small cataracts next day, we arrived at the mouth of the Puruni, and soon found ourselves upon the black water of the Mazaruni, in a part studded with rocks and islands, and of great width. Turning the bows of the canoes up stream, we paddled steadily along against the current, and in the afternoon reached the landing place of Cowenamou, where we camped for the night, our Wahmatta guides going to the village to apprise the natives of our arrival.

On our way up river, one of the men shot two sunfish or Lukenanies (*Geophagus ocellaris*), each about two feet in length. They were of a greenish-yellow colour, and have a black spot encircled with a golden-yellow rim upon each side of the body, near the base of the tail. The males and females of this fish go in pairs, and lie in shallow pools amongst the rocks, directly over the spot where they have deposited their eggs, for the purpose of guarding them from the attacks of numerous small fish. The female watches over her brood after they are hatched, like a hen over her chickens, until they are strong enough to take care of themselves.

CHAPTER IV.

UP THE MAZARUNI.

Cowenamou — Tale of Poisoning — Indians poison Pool for Fish — Our Boats arrive — Continue Journey up Mazaruni — Ascend Issano Creek — Mysterious Sound — Sponges — Sororieng — Red Howlers — Ouranapai — Indian Dances — Attacked by Warracaba Tigers — From Carabung to the Upper Mazaruni — Proceed in Canoes to Apiopai — Starvation — Collect Provisions — Return to Carabung — Adventure with Bushmasters — Regain our Boats — Ascend Mazaruni to Peaimah — The Didi — Descend Mazaruni.

ON the day succeeding our arrival at the village landing, a lot of the villagers came out to see us, and I accompanied them back to Cowenamou, which was about a mile and a half from the river. Our way lay along a well-beaten path, which led up a gradual ascent to a level tract 200 feet above the sea. Situated in a large opening, ankle deep in white sand, stood four houses, constituting the village and forming the homes of twenty-two people. The floors of the houses were of the same deep sand which, from being mixed for years with the ashes of wood fires, had become the colour of moulders' loam. The children, from rolling and tumbling about in this mixture, had partaken somewhat of its hue, whilst the lean curs, which as usual on such occasions charged us in a body, were in a similar grimy condition.

Our arrival at a village was always announced by the barking of dogs and cackling of fowls, the latter

usually fleeing at once into the thickets at the sight of a white face and clothed form; and the former soon being induced to scatter indiscriminately by a charge upon them by some members of our party. Many of these dogs are savage, but all have a wholesome dread of sticks, from receiving continual thumps from their owners. They become very mangy-looking brutes, by lying on the caustic wood ashes of dead fires, and getting singed by crowding too close to hammock fires during the cool nights. The good hunting dogs, as a rule, are prevented from taking part in these injurious practices, by being tied on top of small raised stagings. The hunting dogs are fed regularly, but the useless curs live on scraps, bones, and air. Some of the curs follow the women to the cassava fields when they go to dig that root, and are looked upon as a protection from wild animals, for should a jaguar pounce down upon the party, he will be quite satisfied with seizing and carrying off a dog, giving the women time to escape.

It seems to be a passion with Indians to keep fowls and curs which are quite useless to them. They never eat their fowls by any chance, and were it not for the depredations of vampire bats and small tiger-cats they would increase rapidly. I often felt thankful for the custom, superstitious or otherwise, that precluded Indians from consuming their own fowls, but which did not prevent their selling them to me.

Most of the men at the village were reclining in their hammocks, smoking their long home-made bark-wrapped cheroots; and the women were all engaged in household duties, such as boiling pepper-pot, making

cassava bread, and spinning cotton. The last-mentioned operation is performed by hand, the cotton being attached to the end of a small stick passed through a circular disc of bone, which they roll between the palm of the hand and the outside of the thigh. The cotton is obtained from the cotton trees (*Gossypium sp.*) which they plant around their houses. Pepper, cotton, and papaw trees, together with gourd-vines, are always seen in closer proximity to Indian habitations.

There was an Ackawoise youth from Fort Island, in the mouth of the Essequebo, at this village, who spoke English, whom I engaged as interpreter to our expedition. He told me that when he was a boy his father had been killed by people of his own tribe at their village on the Upper Mazaruni, and that his mother had taken him and two sisters down to Fort Island. There she died, and he was adopted by a Creole named Adams, who brought him up and taught him to read and write a little, and had him baptized under the name of William Abrahams. Not long before the period of which I write, he had learned from some friends that his elder brother had been killed at the village of Cabunie, and he had come up to take away the sons of that brother. The Indian who had murdered his father was an Ackawoise, who afterwards became head man of a small settlement on the Essequebo, called Macedonia, not far below the Penal Settlement, where he was known as Captain John. Living in dread of the law of blood atonement which makes it incumbent on a son to avenge a father's death, Captain John had left the Mazaruni

and settled at Macedonia, watching his chance, meanwhile, to plot against the sons of the man whose life he had taken. Through his agency the eldest had now been put out of the way in a most barbarous manner. According to what William had gleaned from the murdered man's wife, it appeared that he had been induced to join a fishing party, and then had been set upon by a number of men, who, with a refinement of cruelty practised only by savages, had forced his limbs out of joint, rubbed his body over with a white powder made from a species of wild tannier, and then pulled them into their sockets again. He managed to reach home with great difficulty, and take to his hammock, where he was seized with vomiting and died in a few hours.

After returning to our camp I went in a canoe with Ben in search of a good spot, on an island point, commanding a view of the main channel of the river, to camp upon, so that our boats could not miss seeing us on coming up. We were successful in our search, finding a lovely spot, with rocky and sandy promenades around it, together with bathing pools innumerable. A small cataract extended from the head of this island to another near by, and at its foot, in a shallow, we saw a broken woodskin and the remnants of earthen pots, telling plainly that when the river was high a party of Indians had been upset while attempting to shoot the cataracts, losing their canoe, with all their things, and perhaps their lives also.

We broke up our camp at the landing, and moved over to the island, where we formed a new one, most delightfully situated in a cool and airy position.

There we took up our abode, awaiting the arrival of boats and men, then nearly due.

The weather at this period was beautifully fine; a bright blue sky, crossed now and then by a few white fleecy clouds, and almost continuous sunshine, made the whole face of nature look smiling. In these latitudes one's spirits always rise with the sunshine, and sink with clouds and rain. A gentle breeze came up the river, about the time of morning when the heat began to make itself felt, and stirred the leaves overhead all day as it swept over our encampment, bringing with it a grateful and refreshing coolness.

I made excursions amongst the rocks of the neighbourhood, journeying in a woodskin propelled by Ben and Yackarawa, who at the same time plied their bows and arrows against fish, and so kept our larder supplied.

In these regions night closes in about half-past six o'clock during the shorter days of the year, and at a little before seven o'clock on the longest day. After dining late, I was wont to stroll up to the rocks on the upper end of our island, and there smoke a pipe or two, looking up the broad expanse of river westward, and watching the beautiful colours of the sunset clouds fade gradually away. As their reflections were withdrawn, a sombre dark colour overspread the placid surface of the water, interrupted here and there by light bands, marking the places where its surface was broken by rapids. Such a scene had its effect upon the mind, bringing up various thoughts, and a longing to press on over those dark waters to the unknown regions beyond.

I set out at an early hour one morning, with Ben, Eruma, and Yackarawa, in a woodskin, for a place where the Cowenamou Indians were going to poison a pool so as to obtain its fish. After about two hours' hard paddling we arrived at a large cataract, called Cartowerie, and, taking our canoe into smooth water above, found the Indians, eleven in number, busily engaged in beating bundles of a soft yellow root with sticks. These Haiarie roots were each about two inches in diameter, and of a light yellow colour, containing a yellow creamy juice, having a disagreeable, raw smell. Each bundle was about a foot in diameter and two feet in length. When thoroughly pounded into pulp, they were thrown into canoes, in which a little water had been previously placed, and then the juice was wrung from them. The enclosure to be acted upon was of an irregular shape, occupying about two acres of river, and formed by dams of rock, built into the spaces between rocky areas and small islands. In building this the Indians had left two large gaps open, one being where the greatest body of water ran in and the other where it flowed out. When we arrived they had closed these gaps with a wattle arrangement, so that all chance of escape for the fish was cut off. Three canoes, containing the juice of six bundles of Haiarie, were then taken to the upper end of the enclosure, and the subtle poison discharged from them. It was borne down by the slight current, and mingled rapidly with the pure dark water. Most of the Indians then got into their canoes and pushed out, bow and arrows in hand, into the middle of the enclosure, while the remainder, with my men, also

furnished with the same weapons, stood upon the rocks at the edge. In ten minutes' time numbers of small fish came to the surface, and swam uneasily about, trying to rise above water; these soon were floating about quite dead. After an interval of five minutes more, a single pacu showed its back fin, and also tried to raise its head above water. An instant more, and the whole place seemed alive with large fish, Pacu and Cartabac, all struggling and flapping at the surface or whirling round and round. Many tried to force themselves out of the water up the sloping surface of the rocks, and two were successful in this, dying on the strand. From the excited manner in which they struggled, it seemed to me as if the poison had an intoxicating effect upon them. It might have been that the contact of the poison with their gills had produced a feeling of suffocation—hence their endeavours to escape from their native element.

It was a most exciting scene for a time, as the Indians shot arrow after arrow into the bewildered dying fish, and hauled them ashore or into the canoes. In about an hour the murderous work was over, and 150 fine Pacu and Cartabac were lying dead upon the rocks around the pool, the victims of Indian prowess and poison. During the whole proceeding I stood on the rocks at the upper end of the pool and had a fine view of the scene, the finest part of which was to see the naked savage, in all his glory, drawing his bow with strength and ease and letting fly his arrows with unerring aim.

How curious it is that this poison, which kills the fish, should not have a deleterious effect upon its flesh.

That it has not, is proved by the fact that fish procured by its aid are as good and wholesome food as when merely shot with the arrow or caught with hook and line. The process of cooking probably drives out or destroys the bad properties of the poison, as it does with the yam, which is said to be injurious if eaten uncooked. Boiling down the poisonous cassava juice likewise renders it innocuous. It may be, however, that this poison acts in some peculiar way without entering the tissues of the flesh.

On the morning of October 21st our boats arrived, having been nine days in coming up from the Penal Settlement. An Ackawoise, named Simon, came up in his canoe as guide, and about ten other Indians, met on the way, came along with them. Amongst these was an Indian, rejoicing in the name of Jimbo, who, with his two wives and three children, was going to a place up river.

Two of our Pomeroon Arowaaks, the three Caribs, and Joseph, left us at this stage of the journey. Eruma (one of the Caribs), who seemed to have great influence over all Indians with whom he came in contact, had completely subjugated poor Joseph, who responded to his beck and call like a dog, and was now going to accompany him to the Pomeroon. We gave them two of our Puruni woodskins, together with a supply of provisions, and on the following morning they started on their journey down river, in company with Simon. At the same time, we set out on the continuation of our journey up the Mazaruni, accompanied by some Indians in their own canoes. In one was Jimbo and family, and in the others were five

Indian men from the Upper Mazaruni, who had been staying at Cowenamou.

During our stay on the island, Mr. Sawkins and I agreed to extend our journey, if possible, to the mountain of Roraima. We had obtained all the information we could, through William, from the Indians from that part of the country, and learned that we could not follow the Mazaruni round to the mouth of the Cako river, owing to many great falls, by which its navigation was closed; but would have to cross by land from the Carabung creek to the Upper Mazaruni. It would therefore be necessary, on our way up river, to be on the look out for villages where we could obtain provisions to replenish our stock, and where we could hire Indians as carriers and guides for our land journey.

Whilst breakfasting, one morning, a dog, which one of our men named Schomburgk had brought up with him, was sent into the forest to hunt, and soon after came out in full chase of a labba, which took to the water to escape from the dog, and thus fell a prey to the arrows of the men. This dog had been bought by Schomburgk from an Indian at Weynamou, on the Cuyuni, and had become exceedingly attached to him. It was a symmetrically formed animal, of about the size of a bull-terrier, and in colour of a pure, spotless white. Its ears stood erect, and gave it a most intelligent, watchful look, while its tail, which had been docked to a most judicious length, was carried in a jaunty manner. It went by the name of Chickerine, which is the Ackawoise word for that horrid toe pest, the jigger. I took a fancy to this little dog and purchased it.

On the second day, after leaving Cowenamou, we cleared all the islands and came to a portion of the river lying W.S.W. and E.N.E., where a fine view was opened up, disclosing, in the far distance, the northern escarpment of the sandstone mountains lying to the south of the Mazaruni, from which two high bluffs jutted out. We soon after arrived at the mouth of the Issano river, a small tributary on the south, which I ascended in our woodskin, manned by William and Cornelius, in the company of Jimbo and family. Jimbo's first wife had a child of four or five years of age, who appeared to be slightly idiotic, and was partially blind. A little before dusk Jimbo informed me that we were approaching the landing of the village of Peoaquah, and then proceeded to load a new gun he had brought from the Demerara. This was of the sort sold in Georgetown by the name of "buck gun,"—"buck" being the Creole name for "Indian." It had a long single barrel of cheap Birmingham manufacture. Jimbo discharged three shots, to let the village people know that he was coming; but in the excitement of the moment, and exhilarated by the thoughts of a triumphal entry into his native place, he had put in too heavy a charge. At the third shot, which sounded remarkably loud, he gave a cry of surprise, which made me ask him what was the matter. He handed me the gun with this laconic but forcible remark: "D—— gun no good, him bust." Sure enough it had burst near the breech, and a large piece of the barrel had been blown completely away—fortunately into space.

We reached the landing at dark and walked to the

village, a distance of two miles, along a forest path, lighted on our way by a small boat lamp, without the aid of which I must have broken my neck over one of the numerous fallen trees. Making arrangements for a supply of cassava to be prepared for us, I returned next day to our camp at Issano mouth, where we had to remain for two days.

As we were on the point of leaving the landing to descend the Issano, we were all startled by a heavy booming sound, resembling the distant discharge of a heavy piece of artillery. The sun shone brightly at the time, and not a cloud was to be seen in the sky. On making inquiries I learned from the Indians that these sounds were frequently heard at this place, and are supposed to have their origin in the mountains to the south. It is difficult to account for this loud and mysterious sound, unless we suppose it to be produced by a fall of rock from the sandstone mountains, the northern escarpment of which shows a vast front of bold precipices.

The rocky surfaces of a point jutting out at our camp near the Issano mouth were covered with a growth of fresh-water sponge. On the portions uncovered by water the sponge was dead, and formed a dirty, blackish plant-like covering, with hard silicious spicules sticking up, of one-eighth of an inch in height; while on the submerged portions the live sponge was covered with a gelatinous coating of the sponge animalculæ itself. To the dead stems on the river's banks, and also to low trees growing on gravel beaches which for a part of the year are submerged, curious globular, hard, brown sponges are also attached, many feet above the sruface of the water.

Whilst proceeding up a long southerly reach of the river near Teboco cataract, a magnificent view was disclosed of a high and distant table-topped mountain, shaped somewhat like the roof of a house with sloping gable ends, with a lofty conical peak of double its height rising behind. A Mr. Hillhouse, who ascended this river many years ago, called this Raleigh's Peak, but its Indian name is Illuie. We passed a large river, called Semang, coming in on the south, and rounding the bluff point of the Karanang hills on our right, came to the cataract of Teboco. After hauling up this cataract we passed a lot of rocks and small islands, and paddled along open stretches of river with both banks in view, lined with magnificent mora trees. Our course then lay in a westerly direction, over a portion of the river half a mile in width, where, owing to the lowness of the water, numerous sand shallows made their appearance.

When we reached the landing place of a village called Sororieng, we found the Indians who had left Cowenamou with us had already arrived, and, with forty-seven others, had collected there to receive us. Many youths of this party had perched themselves like monkeys on tree branches, in order, I suppose, to obtain a bird's-eye view of the Parangheries (sea people), as they call white men—from their having come from the sea and landed on the coast. Most of the men and women were got up in full dress, consisting of patterns dyed in black over their naked bodies, and red paint on their faces and feet. Bead ornaments, consisting of armlets and anklets, were on them in abundance. These are made of white beads run on a string, and rolled evenly round the ankle and wrist

in a broad band. Some of the men had headdresses made of parrot and macaw feathers, tastefully arranged on coronets of basket-work, held on the head by a string under the chin. Others had a short string of beads, terminating in a bell-shaped piece of bone passed through a hole pierced through the lower lip and hanging down to the chin, while all had blue tattoo patterns at the corners of their mouths. Their red skins were of a fine healthy tinge, and all were well made and in good condition. Every man and nearly every youth had a dirty greenish pellet of a leafy-looking substance held between his lips, which he rolled about every now and then. A dark-greenish juice oozed from it, staining the lips and sometimes trickling down from the corners of the mouth. The presence of the ball caused their lips to separate and protrude, producing an effect on their countenances which did not render them more beautiful than nature had intended. On questioning William, I learned that these pellets are made of green tobacco leaves, mixed with the saline ashes of an aquatic plant called houyah. Every male Indian met with on our journey from this to the Upper Mazaruni had his houyah pellet between his lips. Our Indian friends appeared to me to be all more or less under the influence of paiworie.

One tall man, with bristling hair and large rolling eyes, whose body was bedaubed with red paint, made a long and remarkably loud speech in Ackawoise, giving force to his remarks with gesticulations and wavings of a huge stick. No one paid the slightest attention to him until he became tiresome, when he was with great difficulty suppressed.

Some of the Indian children had a small red howling monkey (*Mycetes seniculus*), which could not have been more than a few weeks old. This little thing, when touched, uttered a few deep grunts, containing the elemental sounds of the howl.

At early morning, at dusk, and through the night, at all our camping places, we were accustomed to hear the howlers serenading. To my mind the sounds produced by these monkeys more nearly resembled a roar than a howl, and when sufficiently far off are not unpleasant to the ear. When heard from a distance of half a mile or so, they seem to begin with low notes, swelling gradually into louder and longer ones till they merge into a prolonged roar, which dies gradually away with a mournful cadence. When not more than one or two hundred yards away, and consequently plainly heard, they commence with a series of short howls, which break off with grunts, and, at every repetition, become longer and longer till their voices have got fairly in tune, when they give their final roar, which dies so gradually away. Then, after an instant's silence, a few deep grunts are given, as if the remains of the compressed air in their throat drums were being got rid of. Listening carefully to the performance, one can detect a voice at a much higher key than the others, especially in the dying-away portion. The Indians say this is made by a dwarf monkey of the same family which accompanies every troop. I was of the opinion that it was the voice of a female howler, but the Indians, who are very careful observers, said it was not. With their black negro-like faces, and long red beards covering

the bony howling apparatus below their throats, they are curious-looking creatures.

After agreeing with eight Sororieng men to accompany us in their woodskins, to act as carriers across the country to the Upper Mazaruni, we continued our journey.

Passing along, day after day, we could see the edge of the great table-land on our left, rising to a height of over 2000 feet above the intervening forest-covered plain, with pinkish and gray precipices here and there, and huge wooded bluffs at intervals. From the end of one of these rose a curious pinnacle of rock, to which the Indians have given the name of 'Caribisi." They have a tradition that years ago a Carib ascended the slope of the bluff to hunt and, for reasons not satisfactorily explained, was suddenly turned to stone. Not being of soluble materials, like the pillar resulting from the transformation of Lot's wife, his stony remains have successfully withstood the destructive forces of atmospheric agencies. It did not require this melancholy tradition to give a charm to these grand mountain escarpments, with their deep glens and mysterious valleys, their frowning precipices, castellated tops, and tree-clothed slopes, for they looked weird enough without any such adjunct. These mountains are known by the general name of Merumé, but to striking portions of different parts the Indians have attached other names.

From two reaches of the river a most curious light-coloured sugar-loaf hill can be seen to the northward, rising high above the surrounding forest-covered country in the rear of the village of Sororieng.

Though distant, it can be made out to be a mass of bare rock. The natives call it Sororieng, the meaning of which in English is "Swallow-nest."

One afternoon we arrived at a village on the north bank, called Ouranapai, and landing, walked up to the houses situated on a raised level tract of sandy ground. Approaching a large circular edifice, walled in with bark, an Indian dressed in civilized costume of shirt and trousers, with a red handkerchief tied round his head, came to meet us, followed by some twenty women and children, whom he drew up in line as we passed. He addressed us in English, and bade us enter the house. Our men greeted him at once as an old acquaintance, named Robert, who, they told me, had been brought up at the Grove Mission, where he had been taught to read and write. He had disappeared from that locality some years ago and had not been seen since. He was now playing the part of schoolmaster and missionary, on his own account, to this tribe, and these women and children were his scholars. He was, in fact, a sort of chief amongst these people, ordering their goings out and comings in. His circular schoolhouse had log seats for the accommodation of his pupils in one part, and rude hand-looms, on which some women were making hammocks, in the other. The men of the place had been sent to hunt and fish, and did not return till the evening.

We had a palaver with Robert on the subject of provisions and carriers, and he promised to do anything in his power for us if we would remain a day or two at his place. We returned to the landing at which I camped, Mr. Sawkins crossing over to the

other side of the river. About midnight I was awoke by a party of our men, who had an Indian in custody, his hands being tied behind his back with hammock ropes. They said that they had seen him go on board one of our boats, and had watched him fill a calabash with rum from their demijohn, but had pounced upon him before he had time to drink it. Our men were very fond of rum, and we had brought a few gallons for their use, a glass of which was served out to each man of an evening, after a day's work amongst cataracts or in rain. This Indian had therefore, in their eyes, committed a dreadful crime when he attempted to pilfer from their small store of this precious stimulant. They begged me to pronounce sentence upon him at once, as he was in a highly excited state. I told them to take him bound as he was to the village and there cast him loose, and threaten that if he returned during the night they would be prepared to pepper him with shot.

On the second evening of our stay, I went to the village to see the dancing which had been got up in honour of our presence, and, seated on a log of wood, witnessed a series of dances in the moonlight, on the large open sandy area in front of the chief's residence. At first our men danced amongst the savages, to the music of their own fiddle and an Indian drum, but their clothed forms spoilt the wild effect of the scene, and I was glad to see one commenced composed entirely of Indians, thirty-three in number. They had no instrumental music, but chanted a simple and wild-sounding refrain, a fitter accompaniment to a funeral ceremony. The whole performance consisted of their

walking round in a circle, with a measured tread, and with their hands on each other's shoulders, preceded by a sort of drum-major armed with a hollow bamboo staff, which he held vertically, and beat time with on the ground. To this bamboo were attached tassels made of seeds, the kernels of which rattled in their casings, and the whole lot rattled against the hollow bamboo. The drum-major's legs were bent at the knees, his body arched, and his voice loud and sepulchral. Round and round they marched, each bringing one foot heavily on the ground at every third or fifth blow of the bamboo, singing all the while. Then they varied the performance by breaking into two lines, which advanced and then retired backwards, with the same measured tread. After each set was over and broken up, they all set up a series of discordant shouts, followed by much hooting, and then paiworie was handed round and drunk *ad lib.* The third dance was rather lively, being a sort of whirling-dervish affair, and more nearly resembling what one would expect from savages just returned from the war-path laden with scalps. They stood up in bands of five or six linked together, the men with their arms around the women's shoulders, and advanced and retired with short running steps, giving a simultaneous stamp at the termination of the advance, and another at the end of the retreat. After five or six of these rushes, every band whirled round and round as if on a pivot, and then as quickly resumed the former measure. Many of the dancers wore feather hats, were daubed with red paint, and had various ornaments hanging about them. The whole scene, lit up by the clear light of

a nearly full tropical moon, was a curious one, and I enjoyed it immensely for a time; but when it became monotonous I retired to our camp and turned in.

During the day small parties of Indians kept constantly arriving at a landing a short distance above our camp, and passed through to the village. My canvas awning was close to the path leading from this landing, and its three side cords stretched across it. That night some more parties arrived at midnight, and awoke me by tripping over the tent-cords, and nearly bringing the whole edifice to the ground. That was bad enough in itself, but their curs, seeing my white tent gleaming in the moonlight, became so scared that they durst not pass it, and so remained about fifty yards off on the path, barking and howling to an alarming extent. Abandoned by its owners, and a prey to feelings of fright, one would, once in a while, on a fit of desperation, make a rush to get past. The tent-rope, taking it across the chest, would stop its headway, and the rebound would throw it backwards, when with fearful yells it would fly back to its fright-stricken companions. At last I had quite a collection of dogs on the path, whose infernal yelpings roused the whole camp, and no sleep could be obtained. These cowardly brutes, fearing hidden dangers in the forest more terrible than the tent, would not take to the bush, and so gain the village. Feeling that something had to be done to free us from this terrible plague, I got up and charged them with much shouting, happily dispersing the whole band.

All the Indians—ninety-two in number—turned out on the rocks at the landing to see us depart on

the following day, and watch our ascent of a rapid above the landing. Standing, sitting, and squatting on the rocks, in groups, these red-skinned individuals formed a very picturesque and interesting sight. That forenoon we met seventy-three Indians in woodskins, coming down river to Ouranapai, thirteen of whom, belonging to a place called Apeng, turned back with us. Our party then consisted of forty-four men, twenty-three of our own, and eighteen Indians, the latter occupying quite a fleet of woodskins.

It was difficult to find out the meaning of this sort of exodus of Indians from the Upper Mazaruni, and in answer to inquiries on the subject we obtained a variety of replies. One was, that they were going down to the Grove; another, that a hostile tribe from the south was going to make a raid upon them, and they were fleeing for safety. My private opinion was that the head man at Ouranapai was enticing them to his place, in order that they might form a large settlement there under his guidance.

At noon on Monday, November 2nd, we entered the mouth of the Carabung, a branch river on the south, and there camped, as it was our intention to ascend it in woodskins, owing to its water at the time being too shallow to float our boats. My tent was erected on the east bank of the river, on rising ground; most of the men, with all the Indians, slung their hammocks to poles stuck in the beach below; while Mr. Sawkins had his boat made fast at a large sand-beach on the western side. In the evening I was busy writing letters, to go down to the Penal Settlement by the boat we intended to send back from this point, when

my attention was attracted by our two dogs, which were tied up, barking furiously, followed by a great stir in camp. Then some voices proclaimed loudly, "The tigers are coming!" and one man called to me to come down as quickly as possible to the boats, and bring my gun. Thinking at the moment that a couple of jaguars had been heard near by, I seized my gun and made a rush down the slope to the camp, jumping down the low bank, eager to get a shot at one, when, to my surprise, I found the beach deserted. Where some twenty Indians had been camped, there was now not even a hammock left; all had suddenly and completely vanished, leaving only two or three smouldering fires and their hammock poles. My men had all taken to the boat, and had it afloat, with its bow barely grounded, in readiness to shove off. They greeted me with cries of "Quick, sir, quick; the Warracaba tigers are coming!" There was quite a flutter of relief amongst them when the boat was pushed off into mid-stream, where they all began to talk excitedly over our escape. The dogs still gave tongue, and were even more excited than the men, the hair on their backs standing erect as they sniffed the air in the direction of our camp. I eagerly inquired what were Warracaba tigers, and was hastily informed that they were small and exceedingly ferocious tigers, that they hunted in packs, and were not frightened by camp fires or anything except the barking of dogs. To water they have a special aversion, and will never cross a stream which is too wide for them to jump.

In crossing the narrow river to the sand-beach opposite, we passed two or three of the Indians' wood-

skins, with one or two people in them, and on landing found the remainder of those who had stampeded walking about and talking on the beach. The moon was just rising over the tree tops which lined the side of the river we had quitted, throwing that part into deep shade. Immediately after we landed I ran a little way up the beach, along the water's edge, with some of the men, listening to hear something of our enemies, for up to that time they had been to me both inaudible and invisible. At the same time I believed that some terrible animals had nearly pounced upon us, otherwise the Indians would never have acted as they had done. As we stopped a shrill scream rent the night air, proceeding from the opposite side of the river, not 200 yards above our camp, and, waking up echoes through the forest, died away as suddenly as it rose. This was answered by another cry coming from the depths of the forest, the interval between them being filled by low growls and trumpeting sounds, which smote most disagreeably on the ear. Although I knew that I was perfectly safe from any attack from these animals, whatever their nature, having the river between us, yet I felt a sort of creeping sensation of horror pass through me at the first shrill cry I heard. Gradually the cries became fainter and fainter, as the band retired from our vicinity, till they utterly died away. Seeing nothing of them, and only hearing their diabolical screams, I pictured them in my mind as a withering scourge sweeping through the forest.

Walking on to the upper end of the beach, we met one of our Indians coming back, who said that he had

been the first to land and run up the beach, when he had seen five of the tigers come out to the water's edge, and after walking a short distance along it turn into the forest again.

The call of these animals resembles that of the Warracaba or Trumpet-bird (*Psophia crepitans*), and hence they have obtained the name of Warracaba tigers. The Ackawoise Indians call them "Y'agamisheri," and say that they vary in size as well as in colour. As many as a hundred are said to have been seen in one pack. I can form no idea as to what family of the carnivora they belong, but from their hunting in packs imagine they must be a sort of wolf. Their cat-like screams, on the other hand, would lead to the supposition that they belonged to the Felidæ. They are said to frequent the mountains, but when pressed by hunger during the dry seasons, at which time their march is not impeded by streams, they descend to the lowlands, and scour them in search of food. Woe be to the animal on whose track they once get if it be far from some friendly stream.

My men were of an opinion that had not the barking of the dogs turned the pack they would have been down upon us before we could have had time to take to our boats, and situated as I was, some little distance in the forest, I should have been the first victim to their rapacity. They must have come out a hundred yards above our camp, and to this, as much as anything, we owed our escape.

After spending about an hour on the sand-beach, we recrossed the river to our camp, and, taking my hammock from its isolated position, I hung it to poles

on the beach. Not one of the Indians returned, but all remained on the opposite side of the river. We all turned in, and had been some time asleep when we were aroused again by some of the men who had kept watch, and who heard the Warracabas coming again. We all bundled into the boat, and put out into the stream till the animals had passed on, apparently along the same route as before. One man said that the pack had evidently lost their way, were bewildered, and had doubled on their own line of march. After giving the brutes half an hour's good start we returned to our camp, and were not again disturbed that night.

Peterson told me that, a few years previous to the time of which I am writing, a band of these tigers visited the back of the settlements near Cataboo, at the mouth of the Cuyuni, where he then lived, and that he and all his neighbours at once left the place and crossed over to the settlements on the east bank of the Mazaruni and elsewhere, where they remained, leaving the tigers in undisputed possession of their lands. Wishing to return to their homes, they met together, and agreed to form a party armed with guns, to reconnoitre the surrounding country to see whether the tigers had left the vicinity. Thirty of them met on a Sunday, and agreed to start on this expedition next day, fully armed and equipped, appointing a certain rendezvous. When the time arrived for them to start, only three put in an appearance; the others, thinking that discretion was the better part of valour, stayed away. These three put off the journey for an indefinite period; and it was fully three months before

they finally made up their minds to return to their homes.

The following morning saw the main portion of our party, consisting of Mr. Sawkins and myself, twelve of our men, and sixteen Indians, proceeding in six woodskins up the Carabung river. We left Captains Peterson and Cornelius and three men in charge of our two boats at the mouth of the Carabung, with orders for one boat to go down to Apeng for provisions during the time we were away. Our woodskins were all of good size, holding four people each; while one was particularly large, being of great length and over four feet in width, carrying ten Indians. The river became so shallow at a short distance from its mouth, where it widened out and ran swiftly, that the men in many places had to get out and tow the canoes over great sand flats, where there was just sufficient water to float them.

The banks were low, and the trees growing upon them were of small growth, of kinds peculiar to swampy regions, such as wallabas (*Eperna sp.*), cork-wood, &c. The great mora trees, which lined the main banks of the Mazaruni, did not extend up this creek.

Our course was first in a westerly, and then southerly, direction; and along the reaches running due south fine views were obtained of the eastern end of a huge flat-topped mountain, called Waterbarru, with perpendicular sides of about 2000 feet in height, near which was a high, irregularly conical peak.

I took my dog Chickerine in the woodskin with me, and being tied in the bottom of the canoe, it had no

opportunity of seeing in which direction we were going. When night came on we camped on a fine sand-beach, and, after our previous night's experience with Warracaba tigers, hung our hammocks to poles stuck in the sand close to the water's edge.

One pleasing thing in regard to the Mazaruni and its branches is, that there are no caymen alligators, and but few water-boas, so that one need not fear an attack, by night, from the water. There is one small species of alligator (*Champsa vallifrons*), however, which is a timid creature, measuring only four feet in length.

As soon as we landed Chickerine ran into the forest, barking loudly, which induced some of the men to follow, thinking it had got on the track of game. They returned after a time, stating that they could not see anything of the dog, and imagined that it had got on the track of a tiger, in which case it stood a poor chance of its life. It had not returned by the time we started on our journey next morning, so I gave it up as lost for ever.

The mornings at this season were cool and cloudy; but at noon the clouds dispersed, and the sun shone with its accustomed fierceness.

We passed on our way close under Waterbarru mountain, one of the jutting spurs of the great sandstone mountains. Groups of trees grew upon it in clusters where they could gain a footing in little slopes, but the greater portion of its sides was composed of bare, grayish and pinkish horizontal beds of sandstone. We now had left the plain and had entered the gorge cut in the mountains by the Carabung river, winding

about in a narrow valley. Soon after we had high mountains on our right, which, closing in as we proceeded, narrowed the alluvial tract till it ended at the foot of a very picturesque fall called Macrebah. Just below this the Carabung was joined by the Seroun river, and at the point of land at their junction was the landing of the path leading across to the Upper Mazaruni. Opposite this was a fine sand-beach, on which we camped, and about ten o'clock that night, as I was taking a stroll in the bright moonlight, I nearly stumbled upon a small tiger which was drinking at the river's edge. On seeing it I immediately stood still, and it walked leisurely across the beach into the forest, passing within ten feet of me. We had our woodskins sunk in quiet pools, with their painters of bush-rope made fast to the roots of trees growing under water, so as to escape the vigilant eyes of Indians who might be in want of such articles.

We commenced our arduous journey by a climb of 963 feet along the sloping side of the mountains forming the eastern side of the Seroun valley. As the path did not lead straight up the mountain at first, but up and down, over spurs, we had to make a long journey before reaching the top of the table-land, and had some steep ascents to perform. On the way we passed a very large isolated rock of diorite, which had formed part of one of the great layers of this rock, horizontally bedded in the sandstone, upon which were lying the bruised remains of a small tree branch, with many more around its base. These were offerings left by Indian travellers at the shrine of the spirit of this rock, who believe that if they did not perform

the rite of breaking off a green bow and beating it on the rock, evil would most assuredly befall them. The top of the mountain was an almost level plateau, covered with a very different vegetation from that of the plain below, the trees being small, and chiefly of a kind called Bartabally, whilst many small shrubs growing there were quite new to me. This vegetation is due to the poor nature of the very thin soil covering the sandstone. Our route lay south, along a rough path leading over the almost level table-land, and across many small streams, till 2 P.M., when we ascended a small escarpment of a greenstone layer, covered with deep red soil, where a taller and better growth of trees flourished. We met eight Indians on their way out to the Carabung, accompanied by a set of large and ferocious dogs, which were restrained with difficulty by their owners from attacking us. They wore Ita palm sandals, showing that they came from the savannas, probably from near Roraima.

Late in the afternoon we camped on the borders of a small stream of dark water, at a height of 1480 feet above the sea, having started in the morning from a level of 175 feet. On camping our Indians saw signs of rain, and all put screens of palm leaves over their hammocks, which they had hung in close proximity together, forming a party by themselves, each three having a fire amongst them. Their weather prognostications proved correct, for about midnight down came shower after shower till daylight. Mr. Sawkins, who camped at a short distance from me, told me next morning that he was visited during the night by two tigers, one coming close to his tent.

The walking next day was exceedingly fatiguing, owing to the path being crossed by tree roots, interlaced together, resting on the sandstone. The rain of the previous night had rendered them slippery, and they bruised the soles of the bare feet of our men. Owing to some of our party being unable to proceed farther that day we camped at 2 P.M. There was little bird and no quadruped life visible, but grasshoppers and crickets kept up a constant chirping in the trees overhead. A cicada now and then broke the surrounding stillness with its loud whistle, which somewhat resembled that of a railway train.

Next day our journey lay across various watercourses, some dry, others containing water, till noon, when we crossed a large creek called Stenaparu. There we met six Indians, who told us we could not reach any water till late in the evening, and would have to descend a steep mountain side to get to it. We therefore pressed on and ascended rapidly for many miles, having in two places to climb escarpments of over 400 feet each. Gaining a plateau 2590 feet above the sea, we traversed it for some distance, coming out at 4.30 P.M. on the edge of what appeared to be a precipice. There the path led down at an angle of 60°, and long bush-ropes for the first hundred feet had been tied to the trees to assist in the ascent and descent of the place. The rest of the way was not so steep, but in places we had to grasp saplings and tree roots to assist in lowering ourselves down. We gained a level place at the foot, 645 feet below the edge of the precipice, where there was a fine stream, at which we stopped for the night.

Next day Mr. Sawkins, who was not well, became very much fatigued, and had to camp at an early hour, keeping eight men with him. As there was only enough rice and cassava left for the dinner of those men, I was forced to press on with the remaining twenty, and reached the Upper Mazaruni river late in the afternoon. Where we left the Mazaruni it was flowing in an easterly direction at a height of 150 feet above the sea, while here it ran west at an altitude of 1300 feet, and was broad and sluggish. Serving out some of the few biscuits I had to my men, they made a sort of a dinner with them and salt fish, whilst the Indians dined off small bits of cassava bread that they had put by from time to time in parts of their packs, in anticipation of our running short. To the slowness of our march was to be attributed our shortness of provisions, for had we got through in three days, as we expected, we should have been able, by waiting, to get supplies at villages on this part of the river. The Roraima Indians went immediately and raised their three small woodskins which they had hidden on their way down, and six of us went on in them as rapidly as possible to reach a village not far off up river. By ten o'clock on the following day we passed a cassava plantation and Indian house, with no living soul near it, and soon reached another village not far back from the river's edge, called Apiopai. Here there were seven or eight squalid-looking people, most of whom were down with fever and unable to prepare cassava bread for us. From them we obtained some sugar-cane and green papaw fruit, and I made an agreement, through the interpreter, with an Indian woman to pay

for part of a field of cassava, and set our men to dig and make bread from it. Returning to our camp at the Carabung path termination with three more woodskins, I packed off all our men at sundown for the first village, to make cassava. Mr. Sawkins had arrived at camp that forenoon with his men.

We did not feel very comfortable that night, not being quite sure of amassing sufficient necessaries of life to enable us to return. The most disappointing part to me was the probable failure of our onward journey, and that we should have to return without reaching Roraima. Our party was too large, and could not be sustained in so thinly populated a country; but I had still some hopes of getting on. These gradually died out, as day after day we struggled for an existence, our large party consuming the miserable pittance of food that could be collected at the surrounding villages. To make matters worse, the people withdrew from their bargain of selling us part of a field of cassava, and threatened to put a Kanaima, or secret murderer, upon our men for having touched it, which frightened them greatly. The Apiopai people just kept us supplied with enough provisions to give all hands two half-allowance meals per day, and when we had all moved to a camp at their landing we spent four wretched days. We had scouts out beating up food at villages, and men out shooting and fishing. They shot nothing, and caught fish of about the size of sprats.

I used to go out on the river to shake off the gloomy thoughts engendered in our dull camp, and on my return once was greeted with pitiful cries of

"Wambay, wambay!" from the Indians, signifying "I am hungry, I am hungry." The fever did not abate at the village while we were there, and one morning a poor woman died of it.

Paddling along one morning on the river, I observed a curious physical phenomenon. The surface of the water was like glass, and the sun, shining brightly at about 10° above the horizon, caused the shadows of the canoe and our bodies to be thrown on the water. From it they were reflected upon the wall of foliage on the bank at a height of about twenty feet up and twenty yards from us, producing a greatly enlarged and double image, the under one being inverted.

Of an evening in camp I used to overhear the conversation of our men; and it struck me as curious that it always was about good meals of which they had partaken, and places where food was plenty. No doubt the empty state of their stomachs suggested such topics of conversation.

On our fifth day of semi-starvation some Indians arrived with a lot of unbaked cassava-meal, which was capable of being converted into very good food by boiling into a sort of pap. There was enough of it to furnish food for a portion of the party, so that on the following morning Mr. Sawkins and eight men started on their return overland to the boats. One old Indian woman, who came with the party who brought the meal, was very kind to the men, and supplied each with a taste of pepper-pot and cassava, and a drink of paiworie, as a present.

On the following day more supplies of food arrived, and I started off with the remaining fourteen men.

Arriving in woodskins at the path end we walked as fast as possible, starting at daylight in the morning, and walking till dusk, and in this way reached the landing on the Carabung in two days and two hours from the time of our leaving the Mazaruni. Whilst camped the first night on the path our Indians were aroused by sounds, which they said were produced by the Kanaima, and slept little, expecting an attack every moment; but nothing came of it. On the way through we stopped to cook breakfast at the foot of the precipice before mentioned; and as I sat upon a log to rest with an Indian beside me, I was startled by his uttering a cry of alarm as he sprung up and fled, pointing behind me. I turned hastily round, and, looking in the direction indicated, saw a large snake coming swiftly towards me, kot more than ten yards off, with its forked tongue darting in and out. I seized my gun, and, taking aim at its head, fired just as it was passing over a rock. The instant the smoke from the charge cleared away I saw, to my astonishment, what I took to be the same snake still coming on; I therefore fired again, and then saw nothing more of the reptile. I turned towards our cooking place, and was astonished to find that it was deserted, every man having fled. Calling out that all danger was over, they came back, dropping in one by one. Walking up to the stone over which I had seen the snakes passing, I found two large bushmasters (*Lachesis rhombeata*), side by side, quite dead, their heads riddled with shot. One was 6 feet 9 inches, and the other 6 feet 4 inches in length, and both had two very long poison-fangs in their upper jaws. My

men told me that these snakes are greatly dreaded, as they will follow and overtake a man with ease, and there is no way of escaping from them unless armed.

We met ten Arecuna Indians on their way through, who were fine strong-looking people, of a lighter colour than the Ackawoise. They are the most warlike of the Guiana Indians, and are consequently dreaded and feared by all other tribes.

When we reached the Carabung, after our forced march, every one of the party was dead beat, and my servant, Cameron, performed the descent of the mountain to the landing by sliding and tumbling down, his legs having refused to perform the duties for which they were intended by nature. At the landing I found a note in pencil, stuck on a stick, written by Mr. Sawkins, stating "that he and party had arrived there at 1 P.M. that day," just two hours before us, "and had gone on down stream." We raised our sunken woodskins, and then camped.

Late in the afternoon on the following day we arrived at our old camp at the mouth of the Carabung, rendered memorable by the night attack of Warracaba tigers, and were disappointed at not finding our boats there. On the way down we landed at an old deserted village, and gathered a lot of ripe cashew fruit (*Anacardium occidentale*), which was very acceptable; and that night, when encamped on a gravel beach on the Mazaruni, we finished the last particle of food in our possession. We hung our hammocks in the top of an old dead Mora tree which had fallen on the beach, and put up the awning amongst its branches.

Rain came on, of course, to add to other evils, accompanied by strong gusts of wind, which nearly blew away our shelter.

Next day we met our two boats coming up the river from Apeng, where Mr. Sawkins had found them. I was surprised to see my dog Chickerine with Peterson, having long since believed it dead—from the day it left us on the Carabung. Peterson informed me that on the morning following our departure from the boats he observed the dog coming out of the forest on the opposite side of the river, and, going across, took it over. Since then it had become much attached to him. It exhibited an extraordinary amount of sagacity in performing this journey back to the boats, and one would be inclined to put its success down to pure reasoning powers, for not having a chance of knowing in which direction it was being carried, when in the bottom of the canoe, it must have been guided by observing the direction of the flow of the stream. It was exceedingly timid, and would hardly approach the brink of the river to drink, yet, on this occasion, it must have swam many small branch streams, and travelled the whole night.

After paying off our Indian carriers, we made a journey farther up the Mazaruni to the foot of a fall called Peaimah, where the river debouches from the sandstone mountains into the plain. Flowing from a gorge in the mountains in a northerly direction, it turns quickly to the eastward, and so continues winding about the plain all the way to its junction with the Essequebo. The Peaimah fall is some fifty feet in height, but not perpendicular, the water pouring

down a rugged incline plane 200 yards in length over horizontal beds of coarse conglomerate. Above it is a pool where the river bends round to the west, and being backed by high and almost perpendicular sandstone cliffs, forms a striking scene. In two places over these cliffs fell long white columns of water, Whilst camped below it, we were visited by a number of Indians who lived below the falls, many of whom, especially the females, had tattooed cheeks marked in dark-blue cross-barred lines, which completely spoilt any good looks they originally possessed. The fine weather, from the time of our crossing the Carabung mountains, had broken up, and though the afternoons were clear and intolerably hot, yet the forenoons were dull and cloudy and the nights rainy; evidently the short rainy season had set in.

On the 24th of November we commenced our return journey to the Penal Settlement, and, assisted by the strong current of the now swelling river, came along rapidly, performing in one day a distance that it had taken us two to accomplish in going up.

The first night after leaving Peaimah we heard a long, loud, and most melancholy whistle, proceeding from the direction of the depths of the forest, at which some of the men exclaimed, in an awed tone of voice, "The Didi." Two or three times the whistle was repeated, sounding like that made by a human being, beginning in a high key and dying slowly and gradually away in a low one. There were conflicting opinions amongst the men regarding the origin of these sounds. Some said they proceeded from the wild hairy man, or "Didi," of the Indians; others that they

were produced by a large and poisonous snake which lives in one tree from its youth up, where it attains a great size, living upon birds which are so unfortunate as to alight near it, and thus become victims to its powers of fascination. The "Didi" is said by the Indians to be a short, thick set, and powerful wild man, whose body is covered with hair, and who lives in the forest. A belief in the existence of this fabulous creature is universal over the whole of British, Venezuelan, and Brazilian Guiana. On the Demerara river, some years after this, I met a half-bred woodcutter, who related an encounter that he had with two Didi—a male and female—in which he successfully resisted their attacks with his axe. In the fray, he stated that he was a good deal scratched. His story requires to be taken with a very large grain of salt.

I shot a forest deer near the Carabung, standing on the river's brink, which, though it saw us, did not trust its eyesight, but deemed us harmless, and so fell an easy prey to my breechloader.

We stopped an hour or two at Ouranapai on our way down, and found it greatly changed for the better, many new houses having sprung up. These, of course, were merely thatched roofs, supported on posts, the rafters, &c., being lashed on with bush-ropes. A house of this sort can be erected in a few days, but the time all depends on the number of Indians employed. The chief edifice had also been enlarged, and I saw over two hundred people in the village. Tame trumpet-birds, parrots, and small macaws overran the whole place.

We spent a day encamped on an island near the Issano mouth, while Mr. Sawkins sent a canoe up to Peoaquah village to get some Indians to assist in paddling his boat, deeming it short handed. We were now approaching the most dangerous cataracts of the river, which all lie between Turisie and Waramambo, near the head of the tidal portion, one called Itukie, near the Puruni mouth, being the worst of all. The men who went up in the canoe brought down our old friend Jimbo and another man. They told me that on their way they encountered a large water-boa, coiled round an alligator, floating on the surface of the stream. They shot an arrow into the neck of the boa, which caused it slowly to unwind its coils from the alligator, and then disappear beneath the water. As soon as the latter found itself free it kicked up its heels and dived likewise, seemingly not much hurt, owing, I suppose, to its not having been long subjected to the crushing power of the snake.

The remainder of our journey to the Settlement was not enlivened by many incidents. The most important occurrences to me were the passage of the Turisie cataract, where my boat struck sunken rocks; and running down the Itukie cataract, where there was a steep descent and fearful waves at its foot, in which my boat was nearly swamped, and all hands got a thorough drenching.

We might be said to have flown down the cataracts, so rapidly did we pass them, only being checked for a short time at one called Arumatope, where we had to lower down after unloading; and at another called Muttosie, where the boats were lowered down a

long narrow side channel, then navigable for large boats owing to the height of the river from recent rains.

On Thursday, the 3rd of December, 1868, we reached the Penal Settlement, and took up our residence once more in the Visiting Commissioner's house, glad to get into civilized quarters under a friendly roof again.

CHAPTER V.

UP THE ESSEQUEBO TO RORAIMA.

Leave Penal Settlement — Indian Picture-writing — Rappu Bamboo — Apoterie — Enter Rupununi — Catch Cayman — Reach Pirara Landing — Visited by Macusis — Start on Walking Journey — Cross Ireng — Ant-hills — Enter Valley in Pacaraima Mountains — Festival at Enamouta — Scarcity of Water — Send back most of Party to Karakanang — Adventure with Ant-bear — Cross Cotinga River — Human-like Cries — Arrive at Roraima — Leave Roraima — Strange Bleeding Process — Armadillos — Return to Pirara Landing.

IMMEDIATELY after our arrival at the Penal Settlement, Mr. Sawkins went down to Georgetown, whilst I set to work to get things in readiness for a trip to Roraima mountain, intending to ascend the Essequebo and Rupununi rivers, and then make a walking journey to it across the Pacaraima mountains. The repairing of boats, and sending to Georgetown for stores, caused a delay of two weeks' duration, which was most pleasantly spent with my good friends the officials of the Penal Settlement.

The days were cloudy and dull, and as I looked out over the broad waters of the Essequebo to the southward, in the direction of my proposed journey, where distant forest and leaden sky met beyond the pale gray waters, I thought gloomily of my lonely voyage about to be undertaken on the eve of Christmas times.

At last, everything being ready, I departed on my

voyage, my party consisting of twenty-two boat hands, in three provision-laden boats. In passing Bartika Grove, and paddling up the Essequebo, numbers of the inhabitants of that place, some of whom had sons or brothers amongst my crew, turned out to see us pass, waving kindly adieus.

Glancing due north, down the wide stretch of smooth river, a water horizon met the eye; but looking due south up stream, the sombre forest lining both banks met in a thin, low, dark line in front. When the tide was with us, we paddled out some distance from the shore; but when it turned against us, we crept close in to the low, muddy bank. Here and there, where the land was high, a thatched house or two nestled in small clearings not far from the high wall of forest behind. The fine broad-leaved plantains (*Musa paradisaica*), growing close to these habitations, and the curious Moco-mocos (*Caladium arborescens*), flourishing on the mud-banks at the water's edge, together with a graceful palm tree here and there, relieved the somewhat monotonous character of the river-side foliage.

When night overtook us we camped in a swampy place, where, unfortunately for me, there was a tree called the "bloodwood," which was selected as a ridge pole for my awning. Whilst sleeping peacefully, copious drops of its blood-red gum fell upon my devoted head, and when I awoke next morning I found my hair in a most disagreeably matted condition.

We met two large Indian boats, with curved thatched tents and high prows and stems, quite a

contrast to the frail woodskins used by the Mazaruni Indians. They contained a number of Caribs, one of whom spoke English fluently, and informed me that they came from the mouth of the Rupununi river, and were on their way to Georgetown with hammocks, &c., for sale. This man had been brought up by Mr. Bernau, the missionary, who at one time resided at Bartika Grove Mission. He and the other Caribs acted as traders for many tribes of the interior, by purchasing their articles of manufacture, such as cotton hammocks, cassava graters, strainers, &c., and, making annual visits to Georgetown, exchanged them for salt, knives, axes, cutlasses, &c. Some of these Caribs showed signs of a mixture of negro blood, and originally came from Oreala, on the Corentyne river, to the Rupununi, at the time when Sir Robert Schomburgk was travelling in the colony.

Passing two wood-cutting establishments, one called Mora, on the west bank, and the other Morabally, on the east—places where the far-famed greenheart (*Nectandra Rodœi*) timber is procured—we reached the head of the tide at the foot of the first rapid, named Aretaka, where the river's surface was broken by ripples and lines of foam, whilst granite rocks and islands studded its surface, dividing it into numerous channels. Soon after we hauled up numerous cataracts and rapids at a slow rate. Finding the river low, we kept up the main channel, and passed up Tabinetta, Marihi, and Abouyah-mallali cataracts, coming to a Carib village on an island, on which a drinking and marriage festival was being held. All the people were painted and ornamented. One man,

the bridegroom, resembled a clown in features and "get up," and was said to be a Brazilian Indian. There was also a Madras Coolie amongst them, whose time of indenture having expired, was living with Indians. Two old women marched about from guest to guest with calabashes of paiworie, chanting as they offered the drink.

Our boats being heavily laden, our progress was so slow that a party of Macusi Indians, amongst whom was the chief of that tribe, passed us at Itaballi, the last cataract of this set, on their way to their homes on the savannas. They were mostly middle-aged men of good stature, with severe countenances and dark-red skins, darkened apparently by exposure to the sun in the open country in which they live.

On our fourth day out we passed the last cataract of this set, and came upon open water, with a few large islands in mid river, where both banks of gray clay, lined with a magnificent growth of enormous Mora trees, could here and there be seen at one time. Soon after we cleared these islands, and had uninterrupted views of long vistas of river.

At the mouth of the Paruacabra we saw a caymau (*Champsa nigra*) for the first time. It is a singular fact that on the Cuyuni and Mazaruni—tributaries of this river—none of these reptiles are to be seen. It would appear that they do not care to pass below the cataracts at the head of the tide; but for what reason it is impossible to say, for the water there is quite fresh, the brackish water never coming more than a short distance into the mouth of the Essequebo, and then only in the very driest seasons. Again, the

Demerara river, lying between the Essequebo and Berbice rivers, has not a single cayman in it, while the upper part of the Berbice is swarming with them.

In some places on the wide, open portion of the river, curious long trap dykes rise above the surface of the water. Our general course was a little to the westward of south, passing on our way a tree-clothed mountain on the east bank, called Arrisaro. There were some large sand-beaches in this and other parts of the river, on which two species of grayish-white gulls have their nests—mere holes scratched in the sand. They fly and wheel about over the river, and will swoop down at anyone walking on the sand near their eggs or young. The scissor-bill gulls, or "sea-dogs" (*Rhynchops melanurus*), also are frequently seen flying swiftly along in small parties, with their sharp, flat beaks dipping in the water. Their cry resembles somewhat the bark of a dog, hence they have received the name of "sea-dogs." On these sand-beaches we sometimes came on the nests of turtles, and often obtained as many as one hundred and thirty eggs from one nest. There are two common kinds of fresh-water turtle, one of large size, called Sachapana (*Podocnemis expansa*), the other a small one, called Taracai (*Emys tracaxa*). The latter lays ellipsoidal eggs, with shells, whilst the former lays large spherical eggs, without shells. The yelk, the only part of the egg that is eaten, has a pleasant but oily flavour.

Before reaching the mouth of the Potaro—a large black-water tributary on the west—we saw some distant high mountains on the right hand, where the

river made a great bend to the westward. Not far beyond the Potaro, where the river sweeps back to its original course, we came to the cataract of Waraputa, at the foot of which we encamped on a white sand beach, and spent Christmas Day. There, in the easterly channel, on large blocks of porphyritic greenstone, are inscribed rude markings and unintelligible characters, formed by the hands of men of prehistoric times. On Christmas morning I visited the spot, and spent a portion of the day in copying the inscriptions.

There was an indescribable charm about these rocks, situated in the midst of the rush of mighty waters, marked with their cabalistic signs, the work of a vanished race. No one that sees them can doubt for a moment that every sign has a meaning, or was made to serve some important purpose of the sculptors. It may be that they point to a time when men of some extinct race had arrived at that stage of human existence when mysterious feelings of reverence for the seen and unseen find a place in their minds, filling them with longings for worship of any sort, and that to satisfy these cravings they set up their own idols in the form of rude carvings on rocks. This will explain how the figures of men, the sun, &c., came to be formed, but not the scrollwork and inscriptions, which I believe were intended to record some striking events in the history of these ancient people.

The Indians residing in the districts where these records are found are a quiet, docile race, who have not arrived at the stage mentioned above, nor worship either idol or unseen deity; and though they acknowledge the existence of one great and good spirit, never

appeal to him for aid in time of trouble. Their doctrine is, that being good he does not afflict them, but that all their ills proceed from the workings of a number of bad spirits. These ills, they believe, can be nullified or cured by their sorcerers or Peaimans, who call to their assistance a host of good spirits. This is their only religion, and its fits come on only during seasons of illness.

They can offer no explanation of the meaning of the picture writings, nor conjecture by whom they were made; and one would suppose that had they been the direct descendants of the picture-writing people they would have had some tradition concerning them. One man, however, in the Pacaraima mountains, who showed me some of these writings, said that the Great Spirit, or Mackunaima, had made them.

Not far beyond Waraputa we passed a singular pillar of granite, called Paiworie cayra, some fifteen feet in height, standing on a pedestal of the same rock. It is formed of very hard granite, which has resisted the disintegrating powers of the weather and the denuding forces of the river, whilst the surrounding mass has succumbed to them.

Some three miles beyond this rock we came to a set of steep cataracts, called respectively Haiawah, Habacuhaha, Owspart, and Saya. On the west bank of the river some high wooded mountains with deep glens can be seen, not far from these falls. They are part of the escarpment of the greenstone and sandstone mountains, which come round from the south of the Mazaruni river. Farther on, above Itaboo cataract,

we passed the continuation of these mountains, abutting on the river and rising above it to a height of about 1100 feet. On the face of their most southerly point is a high pillar of greenstone rock, of a most singular form, which, from its similarity in shape to an earthen water-jar, has obtained the Indian appellation of Comuti.

Between these falls I observed, for the first time, that numerous pacu came to the surface, bringing their heads and back fins out of the water, after the manner of a porpoise, and dipping instantly again. The men said that, on hearing the noise made by our boats, these fish came to the surface in this manner to see what was disturbing their pools. My men shot numbers of them, keeping our larder well supplied with good fresh food. After quitting the last fall my only regret was that no more pacu were to be obtained.

About this time our nights were rendered burdensome by the attacks of countless sandflies, which fed viciously on our blood, drawing it from the region of the wrists, neck, and ankles.

After leaving the Tarquarie mountain we passed two cataracts, and had a long stretch of open river, unbroken by a single rapid until we arrived at Ouropocarie cataract, where we had to portage the stores. There we camped and spent New Year's Eve on a sand-beach, where the wind blew a drizzling rain on me all night, and the men saw the old year out and the new year in, dancing and firing guns at intervals to commemorate the event.

The next falls, a few miles above Ouropocarie, are called the Carricurie, or gold falls, where, on the west

bank, is a small village of Macusi Indians, whose houses are like large haystacks, thatched from the apex of the conical roof to the ground.

We spent January 3rd encamped on a sand-beach opposite the end of a high mountain on the east, called Maccari, where the men set a hook for a cayman, which they succeeded in catching and destroying. Next day we passed Shani-pishani cataracts and the granite rocks of Acramucra, where there is another Macusi house upon an island, and arrived at smooth, open river beyond the Rappu Rapids. The islands in these rapids and a river near by are so called from the existence of a peculiar species of tall and graceful bamboo which flourishes there, not being found farther north. Pieces of the stem of this bamboo are dried and used by the Indians as arrow-heads, which are said to possess similar properties to the far-famed Woralli poison. They split up the stem, and dry the pieces over a fire, and then shape them into lance-heads, which they fasten on the ends of arrows. Wild animals wounded by these arrows are at once completely paralyzed, and in that condition easily despatched. This bamboo is tall, growing singly, and not in clumps, from a mass of matted roots, like the common bamboo.

I landed at the mouth of Aruan inlet, and there got my legs covered with large ticks, which bit very severely, producing small sores, which became very troublesome on my walking journey afterwards. From the Rappu Rapids the river comes from the south-west, so that the north-east trade blowing along it was fair, and we hoisted the awnings as sails. The boats thus

propelled moved steadily, but not very rapidly, up stream, and we passed the mouth of the Rupununi, a large tributary, 200 miles from the mouth of the Essequebo, at 4 P.M. on the 6th of January. We landed at the Carib village of Apoterie, on the west bank, soon after, and there found some twenty Indians, families of the Caribs we met the day we left the Grove.

The water of the Essequebo, above the mouth of the Rupununi, was of a dark colour by reflected light, almost black in fact, whilst below that river, after receiving a large volume of whitish Rupununi water, it lost much of its dark tint. At their junction, before mingling, the contrast in colour between the two waters is very great.

The band of Mora trees lining both banks of the Essequebo continued along it as far up as we went, but did not grow on the banks of the Rupununi up to Pirara landing. Quite a different sort of forest growth begins there, formed of lower and more varied descriptions of trees, of species capable of resisting long periods of drought. One of these, the sapwood of which is white, and the heart bright red, has the somewhat singular name of Itickiebourabally. The Mora grows only on a moist soil along the borders of the river, forming a band on both sides of varying widths, according to the breadth of the band of flooded country during the rainy season. In places it is often not more than 100 yards in width. Up many small side streams the Mora has marchedto their sources, while along others it has not attempted to spread. By their solid-looking tops, composed

of massive dark green leaves, and their great height, they attract attention and excite admiration; and when portions of their tops are sprouting new leaves, which are of a light liver colour at first, turning red, and then green, a forest of them presents many varied tints. Each branch throws out shoots and gets new leaves at all times of the year, independent of other portions of the same tree.

Next morning we returned to and commenced our voyage up the Rupununi, the largest tributary of the Essequebo in this part. It is wide and shallow, with many sand-beaches at its bends, high-gray clay banks, and yellowish-white water. Shortly after entering it a fine view of the high, wooded, distant mountain of Macarapan is obtained, which, seen in the afternoon through the clear atmosphere, is of a dark blue colour. In the mornings and forenoon the weather was dull and cloudy, and large masses of mist hung about the mountain top. A large river, called the Rewa or Quitaro, with dark water, was passed on our second day on the Rupununi.

We spent Sunday, the 10th, on a sand-beach near the mouth of Taraqua inlet, where the men caught a cayman, eleven feet in length, with a strong hook and cod-line. The baited hook was placed on a small piece of wood, and allowed to float on the surface of the stream, where the cayman seized it. As the men were hauling the reptile ashore, before settling its hash with an axe, it floundered and splashed a good deal, attracting the attention and exciting the ire of its companion, which swam to within five yards of the beach, where it prudently remained, its eyes

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shining in the starlight like live coals of fire. An extraordinary incident occurred that night which is worth relating here. One of the men left some food in a tin pan under his hammock, along with two iron spoons, and in the morning, pan, food, and all had disappeared. The only trace of the thief was the footprints of a cayman in the sand leading from the water to the hammock, and back to the river again. Two and a half months afterwards, in passing this sand-beach, we landed, when one of the men, recollecting the episode of the tin pan, went down the beach, which was much enlarged by the subsidence of the river, in search of it, and on the lower end, under the branches of overhanging trees, found the pan, much dented by the teethmarks of the cayman, but with the two spoons still in it. The singular part of it is, how on earth did the cayman manage to carry off the pan without upsetting the spoons?

When we camped on the Saturday night, black-headed turkey buzzards (*Cathartes foetens*) arrived, one by one, until nearly 100 were collected in the neighbouring tree-tops. There they sat out the following day and night, patiently waiting till we left camp, to get any scraps and bones that might remain behind. Their patience was well rewarded, for no sooner had we pushed off than the lot pounced down on the sand, and made a rush at the decapitated cayman, over which they fought, hissed, and jostled each other, tearing away at its neck and soon making a hole big enough for one to get its body in. Some of these unclean birds hopped round the camp fires and fought over scraps and bones of fish.

On arriving at the first place where the savanna comes to the edge of the river on the north side, I landed, and climbing up the clay bank, gazed with delight upon the fine, open, grass-covered country to the north-west. Stretched out before me was an open rolling prairie, carpeted with short green grass, and dotted sparingly here and there with small trees, while the watercourses traversing it were lined with bands of green foliage. Amongst the grass were some pretty flowers and shrubs, a small yellow crocus and a beautiful large twin-flowered lily being most conspicuous. This latter plant had simply a leafless green flower-stalk, about eighteen inches high, from the top of which two white flowers with yellow centres bent out at right angles to the stem. The view was backed to the north-west by grass-covered mountains, looking in the distance like hillocks placed one behind the other, stretching far away till they became of a faint blue in the distance. To the north-east was the great isolated mountain of Makarapan, rising like a giant from the plain.

Continuing our journey, the high gray banks hid the view, and in many parts on the north bank a band of trees grew along the river's edge, while the south side was all wooded. When we arrived at the mouth of a creek called Watama, from which a path led to two Macusi villages on the savanna, we landed and walked to one for the purpose of obtaining an interpreter for the Macusi language, who was known by my men to live there. After an hour's walking over the hard gravelly savanna we reached a small village, consisting of five conical

thatched houses, where I obtained a guide and went on to Annai mountain four miles off. From the top of the first range, 700 feet in height, which was covered with coarse dry grass, I could see the savanna extending far to the westward, while all the mountains to the north were covered with dense forest. At the village I engaged a Macusi, called Henry, to come with us as interpreter, he being able to speak English a little, and Dutch patois fluently, from having lived at the Grove for a considerable period.

In recrossing the savanna to the boats, we started a large flock of savanna plover (*Vanellas Cayennensis*), a kind of pewit, identical in form and size with the English green plover. Their flight is the same, and they wheeled over the plain in great numbers. Their colour, however, is of a slaty cast, and they have a red iris, with a red spur on the wing at the end of the portion supporting the secondary feathers. Benjamin shot two large black savanna ibises, which were flying about, uttering most melancholy bell-like cries. They were about the size of large fowls, having red bills and legs. The sides of their heads and under parts of their throats were bare of feathers, while the skin on the former portions was red, that of the throat was orange. They are called Tarar, and are never sought after as food by the Indians. The savanna pewit also is never eaten by Indians, as they say that partaking of its flesh produces deafness.

Large birds, called sowewies or negrocopes (*Tantalus loculator*), were numerous in this portion of the country, and are seen on the sand-beaches in the river. Their heads and necks are bare of feathers, being

covered with a hard, black skin, divided by furrows into plates. They are white, with black wings, and are frequently seen soaring high in the heavens in circles, mounting higher and higher till they appear like mere specks. Common gray cranes (*Ardea cocoi*) are very numerous, and one frequently meets with the great Jabiru (*Mycteria Americana*), with its long, stout, upcurved beak, black bare head, and scarlet-banded neck. When wounded and brought to bay, it inflates the skin of the scarlet-coloured portion like a great bladder. It stands fully five feet in height, and walks with a slow and stately tread.

Flights of a small kind of brownish pigeon were very common, arriving of an evening amongst the trees on the river's banks, and there finding a roosting place. Small flocks of Muscovy ducks (*Anas moschata*) were seen every day, and also at times the pretty little Wicissi duck (*Dendrocygna viduata*). The latter generally fly by night, when their presence is known by their whistle.

My men frequently shot a fish called the Aruana (*Osteoglossum arowanna*), which was capital eating. It is a sword-shaped fish, of about two feet six inches in length, covered with large iridescent scales. Its mouth turns up at an angle of some 45° to the axis of the body, and it generally swims near the surface of the water, where it jumps at passing flies. This fish is not found on the Essequebo river below the Rappu Rapids, as far as I could learn, and is not known to exist on the Mazaruni or Cuyuni rivers. I have since seen the same fish on the Purus and Jurua rivers, southern tributaries of the Amazon.

One day's journey from Watama brought us to the end of the general westerly course pursued in ascending the Rupununi, and from thence on in following up its windings we travelled in a southerly direction for two days, when we arrived at Pirara landing, the termination of our journey by water. At the entrance of a little inlet, called Wai-ipukari, we formed a camp, and set to work to make waiaries and pack up loads of provisions for our walking journey to Roraima. I sent the interpreter to Carenacru, the village where Passico, the Macusi chief, lived, to ask for Indians as guides and carriers to Roraima.

Our camping place was pretty, but dull, its stillness being occasionally most disagreeably broken by the heavy splash of the huge arrowpaima fish (*Suidas gigas*) in the inlet, or the gulping bellow of the cayman, of which reptile there were great numbers in this part. At first the latter were very tame, from never being molested by the Indians, but after getting some heavy blows from stones, thrown now and then by our men, they kept off a bit. When one was struck it became greatly enraged and swam hastily about, inflating its body with air until it floated high in the water, when it would raise its head and tail simultaneously, giving a great snort.

The arrowpaimas had a trick, on coming to the surface, of bringing their tails flat down on the water, with a blow that sounded like the report of a pistol, and, as they practised it chiefly at night, it had a most startling effect. My men shot one of these fish with arrows, which was some five or six feet in length, with long head, and large greenish scales rimmed with red.

In this part a band of trees grew along the river's edge, and concealed a large pond at the head of the inlet, which was covered with the beautiful Victoria Regia lily, whose leaves completely covered the water. Water-fowl, chiefly the spurwing (*Parra jacana*), inhabited the pool, running about on the Victoria leaves in search of flies, &c., and uttering their curious startled cry when approached.

Growing on the branches of the surrounding trees, amongst numerous other parasites, were two or three kinds of orchids, the loveliest of which was the Cattleya superba, then in full bloom.

On the second morning of our stay at the landing, loud and wild shouts proceeded from the pathway, leading through the belt of wood from the river to the savanna, making the forest ring again; and soon after a band of painted, feather-hatted warriors of the Macusi tribe marched into camp, armed with guns and bows and arrows, headed by old Passico, their chief. Squatting on the ground round me, they listened to the palaver I held with Passico, through the interpreter, regarding arrangements for men to go with me to Roraima. The chief difficulties lay in getting guides who knew the path all the way, and in overcoming the reluctance of the Macusis to go into the country of the Arecuna Indians. A fine strapping young Indian was at last pointed out as the only one who had ever been to Roraima, and the statement was made that he and his brother would be our guides. With regard to the fear of the Arecuna Indians Passico made light of it, as he was not to be one of the party, and settled the question by

pointing out each man that was to go, in a regal sort of way.

This I thought was put on, and would have little effect, but, to my surprise, each man cheerfully responded to the call, answering with the usual "wah," which stands for "all right," with Indians. Before the palaver was over more shouts were heard, and in came another band of Macusis, men and boys, headed by a bone-flute player. This kind of flute, in common use amongst Mecusis, is made of the thigh bone of the jaguar, and has only three holes, but produces good Indian music. Closely following on this party were a number of women and children, making a total of over fifty people. The whole lot spent the day talking, laughing, and examining our kits, evidently enjoying themselves; and at night all but those who were told off to accompany us left by the way they came. They all wore sandals, made of the base of the leaf stalk of the Itah palm (*Mauritia flexuosa*), tied to the foot in a most ingenious manner by cord made of the outer part of the young leaf of the same tree.

The surface of the higher parts of the savanna being covered with sharp pellets of iron oxide, renders it necessary for barefooted travellers to have some protection for the soles of their feet in traversing them. My men had to be provided with these sandals, and, owing to their soon wearing out, had to get a new pair each, every third day, as we marched along, the Indians generally making them when we stopped to breakfast.

After sending our surplus stores down river some five or six miles to a village called Karinambo, to be

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KARINAMBO

taken care of by Indians there, we moored two of our boats in the inlet and sent the other back to the Penal Settlement.

I then started on my journey inland with thirteen of my own men, the interpreter, and thirteen Macusis, all carrying loads of about thirty pounds weight each. In ten minutes after leaving camp we emerged from the band of bush upon the high rolling open savanna, along which one could see the plain stretching away to the westward for many miles. Small trees dotted the surface of the arid soil here and there of species peculiar to such localities. None were more than between twenty and thirty feet in height, and many of them not more than ten. There was one with large leaves and white blossoms like a magnolia, another like a myrtle, and a third—the *Curatella*—with large leaves having their under surfaces as rough as sand-paper. All had rough-fluted bark stems, and were of soft, brittle wood. Being so scattered, they did not afford the least particle of shade against the rays of the burning sun.

North and south of this great rolling plain were two masses of high mountains, the one being part of the Pacaraima range, and the other the lofty Canuku chain. The Pacaraimas, being only some sixteen miles off, their yellowish dry grass covering, with small patches of forest clustering here and there, could be distinctly seen; while the Canukus, being twenty-four miles away, presented an aspect of a dark-blue colour.

I felt my pulse bound as I stepped along this glorious plain with a sense of boundless freedom,

engendered by the nature of the scene, after our late cooped-up river journey, hemmed in by tall forests and high clay banks. We took a southerly course, and soon reached a small village called Aringwong, at which Passico was waiting for me. On we went towards the Canuku mountains, marching in single file along the well-beaten path, and after crossing a great bog, half-knee deep in black mud and water, came to Passico's village, called Carenacru. This village consisted of twenty large circular haystack-like houses, situated on high ground on the savanna, containing a population of about two hundred souls. A good mud-walled house was assigned to us for the night and following day, where we took up our quarters. The next day was spent in making arrangements for the journey. Two men were supposed to have gone on, as I wished to apprise the people of the various villages in our line of march of our coming, in order that they might prepare provisions for us; but as we never heard of them again at any village through which we passed, we concluded that they never went. One man was told off as huntsman to the party, and was provided with a gun and ammunition, but carried no load saving his own hammock.

During our stay at the place, parties of villagers would stalk quietly into our house, examine everything, talk a good deal, and then retire, to be replaced by another party. Five or six little boys kept continually about us, and made themselves generally useful in bringing water and wood to the cooks. Passico paid me frequent visits, and also conducted

me round the village from house to house, where many objects of interest were to be seen.

On Friday, January the 22nd, we made our final start, passing out of the village in single file to the number of thirty-seven individuals, midst much talking, laughing, shouting, and dog barking. Our course at first lay in a west and west-north-west direction, over the rolling savanna, passing to the southward of the old village of Pirara, and Lake Amucu; across the Pirara river, and over the level, clayey plain of the Ireng. This plain, being lower than the savanna, is all flooded in rainy seasons. It has very few stunted trees upon it, while the higher portions of the savanna have, in some few places, large groves of trees, which are called islands, in which the Indians of the region cut down patches and plant their cassava.

The Pirara river was low at the time, the water lying in holes surrounded with growths of moco-moco, a sort of alder, and some prickly soweri palms (*Astrocaryum jauari*). In one of these we saw a manatee (*Manatus Americanus*), or river-cow, and a large wooden dam across the river, made by the Indians for the purpose of capturing these animals at certain seasons.

On the following morning we reached the Ireng river, a broad, black-water stream bordered by trees, and running south to the Rio Branco, across which we were ferried in a leaky dug-out canoe, four or five at a time. On reaching some water-holes in a small river beyond, from which the westerly direction of our journey was to be changed for a more northerly one, we were compelled to camp on account of there being

no more water obtainable under six or seven hours' good walking. There, in a snug camp, we spent our third day out, a Sunday, principally to rest the men, who were footsore and weary from their two days' walk over gravelly paths with heavy loads, under a merciless sun, the rays of which beat down with fervent heat at every lull in the fitful north-east wind. Without that breeze, which blew in spurts night and day, to cool us, I do not know how we could have stood the heat. The ground was baked like brick, and it was difficult to understand how the thin blades of grass retained any green colour in them. They grew thinly in scattered clumps and bunches, and made a poor show.

A species of termite builds high conical houses of gray clay over the savannas and savanna mountains, some of which are twelve feet in height; and these are usually built in clusters, looking in the far distance like miniature Indian villages. Under many of them are the holes of a small species of armadillo (*Dasypus 12-cinctus*), while some have been partially undermined, or altogether upset, by the great ant-bear (*Myrmecophaga jubata*).

Whilst resting that day, the huntsman and two other Indians shot two Muscovy ducks, two savanna deer, and a small Abouyah tiger. This tiger's body was four feet long, of a light yellow colour, with black circular spots. The Indians and my men caught numbers of small fish, called Houries (*Erythrinus unitaeniatus*), with hook and line, in the shaded water pools near our camp. These fish were from six inches to one foot in length, with large mouths, and were very good eating.

Continuing our journey due north over the savanna, we plodded on from 6 A.M. until 1 P.M. over the arid plain, without meeting with a drop of water to quench our thirst, and suffered greatly. Then we arrived at a beautiful lake of clear water, the very sight of which, with its miniature waves beating on its white sand beach, revived us. A ridge of white sand, on its leeward edge, was dotted with large, wild cashew trees, from which we obtained a plentiful supply of that sweet but astringent fruit. On the way we killed a rattlesnake (*Crotalus horridus*), which was crossing the path; it had seven rattles.

Leaving the lake of Culucurana, we advanced towards the Pacaraima mountains, which showed a beautiful picture of highly-coloured peaks and ridges of yellow, purple, and blue colours. The atmosphere being remarkably clear, without the usual haziness it so often possesses, all details in form and colouring were strikingly apparent, and the fine cobalt blue of the distant hills very remarkable. Late in the evening we arrived at the foot of some outlying ridges, and were forced to camp at a water-hole, in which the water was so mixed with white clay that it exactly resembled milk in appearance. This adulterated liquid we were forced to drink and use for culinary purposes, nothing purer being obtainable. We caught a glimpse of some Indians fleeing from us in the distance, whereupon our Indians shouted loudly after them, which only increased their fright.

Crossing a low pass in the mountains, we came upon the valley of the Urumara river, and, traversing it westward, passed through two small Macusi villages,

and arrived at a third, called Enamouta, where a great dance and paiworie-drinking festival were going on. On the hard sun-baked clay, in front of the village houses, thirty Macusis were dancing to the sound of drums and bone flutes, in a most solemn manner, whilst paiworie was being handed round. We marched up and rested awhile under the open shed, called the strangers' house, with which all these villages are furnished, and, having attracted the attention of a small crowd not engaged in dancing, offered to buy up all the eatables in the village, as we were getting hard up for food. All the people, being in an excited condition, merely jeered at us at first, but, seeing what we offered in exchange, were struck with admiration, and soon glutted the market with every old scrap of food they could gather. Those who got calico in exchange for cassava, wound it round their bodies, and danced the whole night thus enrolled. Some had guns, and danced with them loaded, discharging a blank shot every now and then in close proximity to the heads of others. One man, who foamed considerably at the mouth, had a stout sapling in his hand, which he now and then offered to a bystander, and holding out one leg, received a few good whacks, which seemed to satisfy him for awhile, for he then joined the dancers. Emerging from the circle again, he gave his stick to the first person he saw, and once gave it to me, but I would have nothing to do with him, at which he was much cast down. Besides the usual red paint and black dye on their bodies, these people had marked themselves with a white felspathic clay found in the neighbourhood.

After our arrival, a lot of Indians of a branch tribe of the Macusis, called Tasoulemas, came from another village to join the dance, equipped most picturesquely in headdresses, tippets, and short skirts, made of the young pale-yellow leaf of the Itah palm. Many of these were provided with long wooden tubes, painted with rings of red and black, and with flat carved ends of wood, into which they blew, producing a sort of horn-like sound. To the music of drums, bone flutes, and these wooden horns, they all danced, chanting all the while the endless accompaniment of "Hi-yáh-Hi-yáh-Hi-yáh-Hà-a-a-a," from the time of our arrival until we left next morning. I had to go and hang my hammock for the night to trees, some distance off on the savanna, to get away from the horrid row of the festival.

When the sun rose next morning, it disclosed a draggled set of debauchees, weary, stale-looking, and dirty, bedaubed with paint and dust, and in striking contrast with the cool, fresh, sparkling appearance of the mountain-locked valley of the Urumara, with its balmy, refreshing morning air. During the night some ancient feud between the two tribes that had lain dormant, cropped up again, and nearly produced a hand-to-hand fight, but happily was settled by gesticulations and words.

In crossing from the valley of the Urumara river to the next valley beyond, the path followed the dry bed of a mountain torrent, shaded by trees amongst huge rocks. Not a drop of water was to be seen until the very top of the pass was reached, where the head of the stream, a deep pool of limpid water, was

curiously situated. Descending from this pass, we entered a large valley, where yellow withered grass and great masses of rock, tinted with a purple *lichen*, a hard sun-baked soil full of quartz blocks, and an entire absence of water, combined to give it a most sterile aspect. The great masses of quartz porphyry in these mountains assumed most curious forms, sticking up in clusters like old ruined walls, or rose in irregular obelisks.

A pass divided this from another valley, where we found pools of water in the rocky bed of a river, called the Conewyutelli. In this part were numbers of gray flycatchers, with black heads and exceedingly long tail-feathers.

During this portion of our journey we met with water only twice a day, the path making detours to meet the beds of streams; so that during the intervals between 6 A.M. and noon, and between noon and 5 P.M., we plodded on in a thirst-stricken condition. Frequently, on arrival at a water-hole at noon, I would find, to my intense disgust, many of the Indians of our party, who had led the way and arrived a few minutes before me, all sitting in the water, cooling themselves, together with a dog or two. At first I gave vent to my feelings in very strong language, but, as it was not understood and had no good effect, I resigned myself to my fate. Once or twice we found heaps of pounded haiarie on the rocks bordering the pools, showing that Indians had poisoned them to procure fish, and thereby rendered their water undrinkable. The scarcity of water was owing to the dry season being then at its height. During the rainy

season many of these valleys and small rivers would be almost impassable from the quantity of water in them. At night there was not a particle of dew, although the sky was cloudless. The strong north-east trade wind was our chief comfort, and though in some sheltered valleys it was wanting, yet in others, and on the ridges, it made the air delightfully cool.

Although we crossed many Indian paths going in various directions, we did not meet a human being from the time of leaving Enamouta until we reached a place called Cumparuyamo—a period of three days. Leaving this village, the path led up a steep ridge, 2117 feet above the sea level, from the top of which I obtained a most glorious and finely-coloured view of mountains and valleys beyond; and what added greatly to the charm of the scene, was the glimpse afforded of the faint blue outlines of Roraima mountain, far away in the north-west. To the east, one looked down on a small river winding its way through a level bottom to the Ireng; while to the west a long valley stretched away to the Cotinga river, behind which came masses of irregularly-shaped mountains. Far away northward were dark, heavy-looking mountains, evidently covered with forests. Lying before me, across the valley, was the southern escarpment of the sandstone mountains, whose northern faces we had seen from the Mazaruni.

Not far from the foot of the escarpment above alluded to we passed through a village and over the Saca-outa river, continuing our journey to the Marakang, a small stream with fine clear water, at which we spent Sunday, January 31st. That day I ascended

an outlying mountain of quartz porphyry, crested with sandstone, accompanied by a few of my men, who amused themselves by starting large blocks of sandstone from its top, and watching them roll down the mountain side into the valley below, where, with a noise like a report of a cannon, they were broken into a thousand fragments against the hard porphyry masses. This outlier is called Cumararing; its top is 2600 feet above the sea, whilst the level of our camp below was 1335 feet. I spent the latter part of the day in making brads out of small fish-hooks, to secure the soles of my boots, which were on the point of coming off, owing to the nails having dropped out one by one.

Ascending the escarpment of the sandstone mountains, we kept along its edge, and crossing many valleys, descended the greenstone layer, upon which it rests, to a large village on the Karakanang river. As our party marched in Indian file into one end of the place, nearly all the inhabitants fled from the other. One man who remained came forward to greet me, and proved to be one of the Indians who was one of our carriers from the Carabung creek to the Upper Mazaruni. He informed the interpreter that he had returned to this place, his home, by a path across the Marumé mountains. When he went and told the other Indians they all returned to their houses, and furnished us with supplies.

Each of the five large houses, of which the place was composed, had a large store of Indian corn placed on poles across the tie-beams in its roof. In large wooden mortars, sunk in the floors of the houses, the

Indians pounded this corn into meal with long wooden poles, used as pestles. From the meal the women prepared a sour drink, and also a nutritious pap.

The inhabitants of this village, though similar in appearance to the Macusis, are a branch tribe like the Tasoulamas, and are called Karakanang-outas. They said that many of their people had gone to Roraima to see an Indian sorcerer there, who had the power of making himself invisible at will.

Our store of salt fish by this time was very low, and our huntsman seldom procured anything for us save two or three pigeons or parrots per day.

Leaving Karakanang, we again ascended the sandstone escarpment to its crest, at a height of 2800 feet above the sea, and passed over a remarkably sterile tract of country, covered with dry grass and blocks of jasper, where scarcely a stunted tree was to be seen.

When we reached a small village on the Pepee river we were disappointed at not being able to procure any provisions, and, as our stock was so low, I saw that it was impossible to go on with such a large party. Dividing, therefore, the remaining provisions, I sent most of the men back to Karakanang village, where there was plenty of corn to live on, to await my return; and with three Macusis, Ben, and William, I continued my journey. William had by this time completely mastered the Macusi language, from its being so similar to his own, and was able to act as interpreter.

We had not gone many miles before the guide lost the path, and we all scattered to look for it. In doing so I walked almost on the top of a sleeping

ant-bear (*Myrmecophaga jubata*), which, springing up, sat on its hind legs, and grasped at me with its huge fore claws. I sprang quickly to one side, and thus escaped. Thinking that it was good eating, I shot it, but the Indians said that it was not wholesome food, although, from the great interest they took in seeing it killed, I thought it was. These large ant-eaters are very dangerous customers, and have been known to kill men. William told me that an Indian, living near Roraima, was hunting in the forest to the north of that mountain with some others, armed with his long blow-pipe. In returning home, considerably in advance of the rest of his party, it is supposed that he saw a young ant-eater, and, taking it up in his arms, was carrying it home, when its mother gave chase, overtook, and killed him; for, when his companions came up, they found him lying dead on his face in the embrace of the ant-bear, one of its large claws having entered his heart. In the struggle he had managed to stick his knife behind his back into the animal, which bled to death, but not till after the poor fellow had succumbed to its terrible hug. It was evident that he had only heard the ant-eater coming when it was close upon him, and in turning round to look his blow-pipe got caught across the path in front of him; then, as he turned to run, it formed a bar to his progress, and he fell over it as the animal seized him. So firmly had the animal grappled him, that to separate it from the corpse the Indians had to cut off its fore legs.

After little loss of time the guide found his way, and we reached the Cotinga river just in time to wade to a small island, on which a few trees grew, to get

a place to hang our hammocks for the night. We crossed the Cotinga next day at the head of a large fall, some fifty yards in width, called Orindouie, the water not reaching much above our knees. It was with the greatest difficulty that I could keep my footing, the smooth, flat rocks on the bottom being covered with a gelatinous sponge, which rendered them exceedingly slippery. Passing through a belt of wood beyond we came to an Indian house of small size, but inhabited by twenty-four individuals. It put me in mind of a bee-hive well stocked with bees. There an old Ackawoise joined us as guide, and on we went through a partially wooded country, rising gradually from the valley of the Cotinga to a great open, undulating plateau, spreading southward at an elevation of 3500 feet above the sea. We kept on in a north-west direction, reaching near nightfall a solitary house belonging to our new guide, and there we spent the night.

There was a strange charm about this place; situated on a great lonely elevated land, not far from a few scattered groves, and exposed to the strong winds, which came in gusts from over the dark forests to the northward, whistling mournfully through the cracks and crannies of the old mud-walled palm-thatched house. To the north-west, rising to a height of some 2000 feet above the level of the place, stood the great Waetipu (Sun mountain), formed of horizontal beds of sandstone, the alternate hard and soft layers of which produced most singular terraces on its sides, while near it stood two most curious conical peaks.

The owner of the house made the door fast at dark with a palm mat and large poles, and we turned in,

each Indian having a small fire placed under his hammock to keep his naked skin warm, the night being quite chilly.

Long before daybreak on the following morning, lighted by the moon and the morning star, we were on our way once more. The morning air was deliciously cool, and, thinly clad as I was, it almost made me shiver.

Early in the forenoon we rounded the end of Waetipu, and a glorious view of Roraima mountain burst upon us, with the bright sun's rays lighting up its curious details. Marching directly towards it, over ridge and hollow, where small streams were numerous, we halted for a time on a ridge at the edge of an extensive valley, in which ran the Arapu river. Nestling in the valley at our feet was a small village, called Ipelemouta. From the opposite side of the valley a number of ridges intervened between it and the foot of Roraima. Turn in any direction I would most wonderful scenery was presented to my view, from the great pink precipiced Roraima in the north-west, looking like a huge fortification surrounded by a gigantic glacis, to the great undulating plain stretching southward as far as the eye could reach, where at the horizon land melted into sky.

A great layer of white fleecy cloud hung over Roraima, obscuring its top, which, driven by the wind, seldom cleared it before another cloud, following in its wake, enveloped its farther end.

Descending to the village we found it abandoned temporarily by its owners, members of the Arecuna tribe, and took up our abode in it.

C.B. Brown, del.

Stanford's Geog.l Estab.t

RORAIMA.

In traversing the country between Waetipu and Ipelemouta, we stopped in the forenoon to rest and feed, when we were startled by a most singular prolonged cry, which made my Indians spring to their feet, listen intently, and then talk earnestly with bated breath. As there was something so human in the sound I wished to go and see what it was, but the Indians would not stir a foot to accompany me, and fearing I should lose myself I gave up the idea. The Indians, ever ready with an improbable explanation, said that the sound must have proceeded from some Arecuna, who, having killed one of his own people, had been turned into a wild animal.

In the small groves bordering the Arapu river were numbers of birds of a kind allied to the bell-bird (*Casmorhynchus carunculatus*), whose singular call attracted my attention. They utter a repetition of one metallic sounding note, not unlike that produced by repeated blows of a hammer on an anvil, with great rapidity. A specimen of this bird which I procured was submitted to Dr. Sclater, who identified it as the *Casmorhynchus variegatus*. The peculiarity of this bird consists in the extraordinary long black leather-like filaments hanging in a fringe from the sides of its large mouth and throat. Its body is white, head brown, and wings black. These birds are very numerous from the Cotinga river to Roraima, but east of that river only one or two individuals were met with.

On Sunday, February 7th, I took the guide and another Indian, and crossing to the foot of Roraima, ascended its sloping portion to a height of 5100 feet

above the level of the sea. Between the highest point I reached and the foot of the great perpendicular portion, which towered high above us, was a band of thick forest. Looking up at the great wall of rock, 2000 feet in height, I could see that a forest covered its top, and that in places on its sides, where small trees or shrubs could gain a hold with their roots, there they clung. The great beds of white, pink, and red sandstone, of which it is composed, are interbedded with layers of red shale, the whole resting upon a great bed of diorite.

No one can view this wonderful mountain and its surrounding similarly-shaped neighbours without feeling convinced that they stood at one time as islands in the ocean, but at what period of the earth's history it is difficult to say. If any mammals then lived upon them, when the sea washed the bases of their cliffs, the descendants of those mammals may exist there still, for all communication with their tops and the surrounding country has ever since been effectually cut off by their perpendicular sides. It is interesting to speculate upon what sort of animals might be found there, but as a speculation it must remain; for unless one ascended the mountain by means of a balloon the question could never be settled. The length of Roraima is about eight or twelve miles, Kukenam is perhaps more, and Ille-beapeur still more extensive, while all have perfectly level tops. The area of the surface of Roraima mountain must be considerable, for Sir R. Schomburgk, who visited its southern end, to the westward of the point to which I ascended, describes some beautiful

waterfalls as leaping from its sides, forming the drainage of part of its top; when viewing it from a mountain on the Upper Mazaruni, in 1872, at a distance of thirty miles, I distinctly saw an enormous waterfall, on its north-east side, of very considerable width and extraordinary height.

One might spend a month in the district, and not exhaust the wonderful treasures of scenery to be found there.

As night closed in, the great masses of fleecy clouds that enveloped the upper thousand feet of Roraima seemed to sink lower and lower, until they rested on the sloping glacis. Then the temperature fell rapidly, from 79° at sunset to 59° at daybreak. With the rising sun the clouds lifted to their usual level again.

On the day following my journey to the foot of the precipice, I was compelled to turn my back upon this wonderful place, owing to our stock of provisions being insufficient to sustain us much longer, and the uncertainty regarding the welfare of the men I had sent back to Karakanang. There was, however, some satisfaction in the knowledge of having accomplished the chief object of my journey, and I therefore set out on my return with a certain amount of light-heartedness.

Soon after leaving Ipelemouta we came upon two small yapocks (*Chironectes variegatus*) on the path, and gave chase to them. They ran swiftly, but we managed to gain on them, and nearly overtook them as they reached a small water-hole near a stream. The Indians managed to kill one with stones, while the other made for the stream, closely pursued by the

Indian guide and myself. I could have shot it had not the old Indian guide skipped along close on its heels, until it reached the water and disappeared.

Early in the forenoon we rounded the end of Wactipu, and I took my last near look of Roraima, with its attendant fleecy clouds. On arriving at the Indian place near the Cotinga, called Weynamou, at dusk of that day, the women, as usual, placed pepper-pot and cassava on a mat in front of the door of their houses for us. Feeling ravenously hungry I partook largely of the compound placed before me, which, though covered with deer's hairs, had an excellent flavour. Dipping a piece of cassava into it, I felt it touch a hard substance, which I unfortunately hoisted to the surface, when, to my horror, I found that it was a mass of deer's entrails. I immediately arose and left the spot. I found upon inquiry that this delicious compound was made of deer's blood and entrails.

I had my hammock hung to poles outside the house, and was just going to sleep when one of the most diabolical noises ever heard sounded in the house. It resembled a mixture of sound produced by the striking of an alarm clock and the cackling of a fowl, and I felt sure proceeded from some raving maniac of an Indian; but, to my surprise, learned that it was produced by a large tame owl.

Two men of the place went on with us to Karakanang, one to carry provisions we had bought, and the other to take the load of William, who had sprained his ankle, and walked with great difficulty.

On arriving at that village I found my men had not suffered from their diet of corn, upon which alone they

had subsisted during my absence, never having been able to find any game to shoot, or fish to catch.

My shoes being much worn by constant tramping over rough gravelly and rocky paths, had got sadly out of shape and injured one toe, which gave me such pain that my mode of walking was reduced to a limp; so that, instead of keeping my place in the van as hitherto, I formed one of the rear-guard of stragglers. I had a touch of fever the day I spent at Karakanang, and the following day, whilst on the march, was again seized with a sharp attack of that malady, accompanied by vomiting, which threw me completely on my beam-ends. I had to lie in my hammock between two low scrubby savanna trees, which afforded hardly any shelter from the sun's rays, for some five hours, until I felt well enough to proceed. About half of the party of Indian carriers being in advance when I was obliged to stop, had gone on, and carried most of my things with them. Some of those remaining with us employed themselves during the day in catching numbers of the large species of termite, which build low mounds of earth, and, after roasting, ate them with evident relish. They captured these insects by inserting a dry grass stalk into their nests, to which the termites adhered by their mandibles, and were drawn out in hundreds.

Early next morning we started off, and after three hours' march came up with the advanced members of our party, who had camped near a small stream, in the bed of which were large areas of flat sandstone rocks, with hollows in them. Some of these hollows were filled with clotted blood, which, upon inquiry, I

learned had been drawn from the arms and legs of the Indians. When Indians suffer from any pains or stiffness in their limbs, caused by fatigue or otherwise, they procure a sharp flinty stone, or piece of broken glass, with which they score the affected part in long parallel cuts, just piercing the skin, and allowing the blood to ooze out in little bead-like drops. By scraping down the cuts with a knife's edge the beads of blood are removed and more blood oozes out; but on letting the beads remain they coagulate and prevent any further flow. In this way they can draw just as much blood as they like from the part.

When we reached Cumparuyamo village our supply of provisions was nearly exhausted, and with the little we had left I sent eighteen Indians on to Enamouta, whilst I remained there one day with the rest till enough cassava was made to give us half allowance. Whilst there some people belonging to the place killed an alligator in a water-hole near by, which must have come up into the mountains from the Cotinga river.

Resuming our march, we reached Enamouta village in two days. On the second day a light misty rain fell, which made the air cool, and was the first regular rain we experienced on the whole of our journey amongst these mountains.

On our way along, near the Curiewakie river, a splendid antlered deer sprang up about 50 yards in front of me, dashing up a steep and rocky hill-side rising some 300 feet above us. The huntsman tried to cut it off, by taking the hill in a slanting direction; but, though he ran gamely, the deer beat him. When the deer arrived near the top it could not go

at more than a walk, so thoroughly had the run up hill exhausted it. In the Unamara river valley we started two deer, one of which was followed by a large hound belonging to some Enamouta Indians who accompanied us. It was a splendid sight to see the manner in which the deer drew away from its pursuer. The dog, not being urged on by the cries of its master, and seeing that no one took much interest in the chase, gradually drew off.

I remained a day at Enamouta, a victim to the inquisitive inhabitants of that place, while food was being prepared for us. These people never left me entirely alone, but usually squatted round me in relays, watching my every movement. I heartily wished them miles away; but, as I was a guest of theirs, refrained from getting the interpreter to tell them to clear out. At this stage of my journey my foot had got well, and the fever—touches of which followed the first attack—had now left. It is a curious but well-known fact in this country that a slight injury to any part of the body will invariably bring on short attacks of fever.

In the early morning, about 4 A.M., the Indians in these mountains, as well as those on the savannas, become wakeful, and talk a good deal, some of them singing a most tuneless, dirge-like song. At Enamouta they added the noise of a drum to the performance, and at daylight they all issued from their houses simultaneously, greeting the morn with cries and loud shouts.

Early in the morning of the day on which we left Enamouta, we cleared the mountains, and were once

more back on the great level savanna. By 4 P.M. we reached the Lake of Culucurana, and camped under the large cashew trees. From this place we went on to the spot at which we had spent a day on our outward-bound journey, after crossing the Ireng, and taking a bee-line across country, made a forced march, which nearly proved fatal to one of the party, a young man named D'Este, who, being footsore, fell behind, and thus lost his way. Fortunately some Indians, who did not leave the lake for two or three hours after us, came upon him, after he had given himself up for lost, and had sat down in a completely bewildered state.

During this day's walk I witnessed a most beautiful mirage to the eastward, which resembled a large expanse of water, on the edges of which I could imagine I saw the actual movement of waves. Mirages are very common on the savannas, causing distant lines of trees to look as if raised up from the ground. In the afternoon all hands were busily engaged catching fish in the pools which had proved so prolific before, and a large number of houries were obtained. We seemed to have come suddenly upon a land of plenty, for some of the men shot Wicissi ducks and pigeons. My dog Chickerine and the hound frequently amused themselves in catching small armadillos and carrying them in their mouths.

Crossing the Ireng river we reached a place on the Pirara river, where Indians usually camped, and there stopped for a night. Our huntsman, who had been so unsuccessful during the whole journey, had become

much nettled at his want of luck, and after we crossed the Ireng he left our line of march, stating that as he knew this part of the country he would procure a deer that day. At dusk he joined us in camp with two of those animals that he had shot, one a large buck, with velvet-covered antlers, and the other a young doe, both of which he carried on his shoulders. The doe he had killed at midday, and he had therefore been lugging it about for six hours. Not a particle of these animals was wasted, even the legs, feet, and entrails being boiled into pepper-pot by the Indians.

Half a day's march from this, in a light drizzly rain, brought us to Carenacru village, where I was welcomed by old Passico, who was arrayed in two shirts (one over the other) that I had given him. The Macusis left me in comparative quietude that day, but I paid for it on the next, when they kept visiting me in numbers, begging to see my sketch-book, of which the Indians who had been with me had told them. They were greatly pleased with it, and shouted with delight on recognizing the animal forms that I had attempted to delineate therein. Amongst those who requested to see this book was a bevy of young damsels, some of whom were very pretty. It took them some time to muster up courage to make the request, but as they became interested in the sketches their shyness wore off, and they clustered around me, as I turned from one picture to another, expressing their delight in a most natural and enjoyable manner.

Having paid off my Indians in *negotiæ* I bid them

adieu, and on February 25th, with my own men, went on to Pirara landing, where I found our boats as we had left them.

On the way down, at Aringwong village, I saw a tame savanna powie (*Crax Urumutum*), which differed considerably from the common powie (*Crax alector*), but was of nearly the same size. It had a red beak, and chestnut feathers in the part where the common powie is white.

During the night spent at the landing we were attacked most unmercifully by mosquitoes. I mention the fact because, though a prey to almost every other kind of insect pest, we had not during all our journeyings, from August to this period, met with night or day mosquitoes in sufficient force to be at all troublesome. In the forest a very large mosquito, with a steel blue body, was frequently met with, that had the curious and, I may add, disagreeable habit of making incessant attacks on the end of one's nose; but as only one at a time came on, and its bill gave a sharp prick, it was never able to effect a lodgment for the length of time requisite to enable it to get even a fair drink of blood.

CHAPTER VI.

TO PIRARA AND THE IRENG.

Karinambo — Vampire Bats — Sketch of Brazilian Capture of Pirara in 1840 — Snipe in Pipicho Morass — Descend Rupununi to Mora — Walk across Mountains to Ireng River — Peai-ing — Indian Belief — Indian Warfare — Stone Circle — Descend Rupununi — Obtain Breech-loading Cannon — Indian Murderer at Apoterie — Descend Essequebo to Penal Settlement.

FROM Pirara landing we went down to Karinambo village, situated on the savanna, about 300 yards from the river, where we had left our surplus stores before our departure for Roraima. Two of the houses, with mud walls, were built on long posts ten feet high, with floors made of split palm stems. The first night we spent there the vampire bats (*Phyllostoma bidens*) attacked my dog, which slept beneath my hammock, and tapped it in three places, drawing off a quantity of blood. From the pools of blood on the ground beneath it in the morning it was evident that after the bats had taken their quantum, the blood had continued to flow copiously from the wounds for some little time. From each spot where the bats had sucked, the skin had been removed in a circular patch quite the size of a silver threepenny piece. During the remainder of my stay there I had to keep a lamp burning at night, as an effectual preventative against vampires. One of my men, who was bitten on one toe at the same time, told me that the wound smarted very much.

A small armadillo, that I had brought with me from the Pirara savanna for the purpose of taking to the coast, became so weak from not partaking of any food that I had to let it go. Although I placed portions of termites' nests, teeming with inhabitants, close to its nose, it would have nothing to do with them.

From Karinambo I made a journey to Pirara, on Lake Amucu, and back, which occupied four days. On the way we stopped the first night at a village called Mopay. The moon was full and the atmosphere misty, a thick layer of mist-cloud driven before the wind obscuring the whole of the sky. About midnight we were all aroused by the talking and singing of the Indians in one of the houses, and, thinking it was daylight, turned out to boil our tea, preparatory to starting on our journey. After washing and partaking of that beverage, I waited for day to break; but as it seemed never to get lighter I fell asleep, and awoke at the real daylight next morning. The men having fallen asleep again before their pannakin of water boiled, it was left on the fire all night till the water evaporated, and its bottom was melted out.

Just beyond a village called Pipicho we had to cross the narrowest part of a large morass a quarter of a mile in width, over which we had to walk as rapidly as possible to keep from sinking in the bog. In many places we had to spring from one floating matted tuft of rush and moss to another, before they sank with us into the bottomless swamp.

Our second night was spent at the village of Quatata, a large place situated on high ground, from which two other Macusi villages could be seen. From it we

had a fine view of the Pacaraima mountains to the north, with the great stretch of open level intervening, savanna and Lake Amuca in the foreground. This lake, at the time of my visit, was low, and its bottom mostly covered with a rich carpeting of grass. Two large wooded patches in it represented the islands of Ipomucena. It was on the borders of this lake, according to Humboldt, that Indian tradition placed the far-famed and mythical city of El Dorado. Half a mile west of Quatata we came to an almost circular earthwork, four feet in height, and some thirty yards in diameter, surrounded by a shallow ditch, within which were the shattered remains of many beer and wine bottles. This is called Fort New Guinea on Sir R. Schomburgk's map, and was made by the black troops sent up from Georgetown, in the year 1840, for the purpose of ejecting the Brazilian soldiers who at that time had been sent from the frontier fort of St. Joaquin, on the Rio Branco, to occupy Pirara. It would seem that this proceeding on the part of the Brazilians had been prompted by the jealousy with which they regarded the establishment of a Protestant Mission at the spot by the Rev. T. Youd. Along with the Brazilian troops came a friar who, after Mr. Youd had been driven away, erected a huge cross in front of the mission church, and turned it into a Roman Catholic establishment.

Some time after the news of this outrage reached Georgetown, the Government sent up some companies of a West Indian regiment in large boats, who, on arriving at Pirara landing, disembarked, and, proceeding to within about a mile of the spot where the

Brazilians had entrenched themselves, threw up the above-mentioned earthwork. They then gave the Brazilians a certain number of hours in which to evacuate the place, or else, if they remained, to take the consequences. The Brazilian commander preferred to accede to the demand to evacuate Pirara, and, after all preliminaries had been arranged, returned with his men to the Rio Branco.

When on the Rio Negro, in Brazil, in 1874, I met with a Major Mordel, who informed me that the friar, who was with the Brazilian troops at the Pirara, was the Padre Frei José, a man mentioned by Mr. Wallace in his book on the Amazon and Rio Negro as not bearing the best of characters.

The charred hardwood upright posts of Mr. Youd's church still remain, while all traces of the numerous Indian houses that then constituted the village have succumbed to the hand of time. Broken pottery, pieces of crockeryware, and bleached bones of animals, alone remain to show where the village once stood.

In returning to Karinambo, we struck the Pipicho morass where it was more lake-like, and in traversing the strip of boggy ground intervening between the savanna and the edge of the water, I was astounded at the immense number of snipe which I flushed. I do not exaggerate in the least when I state that, at every fifth step, a snipe rose at my feet. The place was covered with long grass and rushes, shaded here and there by gigantic Itah palms. This sloping tract ran along the edge of the morass for a considerable distance, and over the whole of it were snipe lying in vast numbers. Unfortunately I had left my breech-

loader behind at the boats, and so lost some excellent sport. I, however, made an attempt to enjoy myself; taking the long single-barrel Indian gun, charged with BB-shot, I walked up and down different parts of the morass border, and blazed away as fast as I could load and fire. I used up all the powder we had with us, and no end of BB-shot, without killing a single bird. This was not to be wondered at, for, putting aside the fact of my not being used to a single-barrel gun, there were the great size of the shot, and the scattering properties of the gun against me. Amongst these snipe I flushed a few of the double-snipe, of about the size of woodcocks.

Whilst my men were caulking one of the boats which was very leaky, I went from Karinambo with a guide and Ben over the savanna to some ponds covered with lilies, in a morass surrounded by trees, which contained numbers of ducks and other aquatic birds. Ben had lagged behind, and the Indian guide and myself crawled through rushes, water, and shrubs, to get a shot at a flock of Wicissi ducks. When with infinite trouble we had got within 100 yards of them, the report of a gun at the farther end of the ponds was heard, and in an instant nearly every bird rose in the air, and wheeling round once or twice took flight to other parts. The number of Muscovy and Wicissi ducks was immense; and besides these were jabiru, negrocopes, bush ibises, gauldins, quaaks, gray and white cranes (*Herodias leuce*), and blue-winged teal. The latter did not leave the pools, and I shot one or two of them.

On our way back I found that it was Ben who had

fired the shot which disturbed the feathered tribes, and spoilt my sport. He had fired at an old white crane, not thinking of the dire result to me, and was very sorry for what he had done.

Leaving Karinambo, we went down the Rupununi to the great elbow where the river, at the foot of the mountains, changed its course from north to east. Entering a small creek called Mora, I landed, and from that place made a long journey through the mountainous region across to the Ireng river, which occupied a period of six days. I procured a guide at Mora village, who turned out to be a jewel of a man for that sort of work, and most communicative. He knew every striking-looking rock amongst the mountains, their names, and the traditions connected with them. I had to make the interpreter walk close to me, to translate all he said; but when the former got weary of so doing, he used to drop to the rear, and I lost in that way much of what was said. It made no difference to the guide whether I understood him or not, for he would unburden his mind of the traditions connected with these mountains, when anything brought them to his thoughts. On the mountain side, bordering the Cawulibar valley, he pointed out a large rock under which an evil spirit dwelt; while under a dark, towering hill he said that many wicked wild beasts had their homes, and that no Indians dare go near these places. There was also a hill close by on which he said a spirit, at the approach of the end of the rainy season, made a noise like the report of a gun, to stop the rain from falling. The noise made at this hill is, I suppose, similar to that which I heard at

Issano, on the Mazaruni. He showed us a waterpool where a Macusi had been beaten to death by his comrades, and said that the pool bears the name of the murdered man. He turned out to be a famed sorcerer, or peaiman; and at a village called Itabay, where we stopped one night in returning, he left the house in which we had put up our hammocks, telling the interpreter to inform me that his absence for the night was unavoidable, owing to his having to go up amongst the mountains to roam about for the night, whilst his good spirit remained in one of the houses to cure a sick man, who had demanded his good offices. In two minutes after he had left us his powerful voice was heard making the most discordant sounds imaginable, chanting, howling, coughing, and many other diabolical noises. To these were added the *shishing* sound of an instrument called a shak-shak, made of a small round calabash filled with seeds, and placed on a handle, by which it is shaken. All the fires in the house had been put out in anticipation of his arrival, and the place was pitch dark, so that the illusion that he was not there in the flesh might be kept up. Owing to the noise I did not get a wink of sleep until about two o'clock in the morning, and often thought, during the night, what a good thing it would have been if his spirit had only accompanied his body to the mountains.

The house being close to the one I was in, the interpreter could hear all he said, and at my request, but with evident reluctance, told me what it was. It seems that he entered the house silently, and then commenced the sort of din above mentioned, beating

with a palm branch on the floor. He then asked in a deep sepulchral voice what it was that ailed the patient, to which the sick man's wife responded that some evil spirits or kanaimas had "done him bad." The sorcerer then said, "Well, I don't know whether I can cure him, but I will do my best." He then called to his aid the good spirit of a bird, called the maroodie, the descent of which from the roof was made known by the shaking of the palm leaf raised up and gradually lowered to the floor. On the arrival of this good spirit, it at first complained of having had a long journey, and that it was much heated by the haste it had been obliged to make when so suddenly summoned, It made the usual amount of noise, interlarded with whistlings (in imitation of the maroodie's call), and promised to do its best. When its best, which consisted of discordant sounds, had been done, its egress through the roof was made known by the shakings of the palm leaf, and a dead silence of a minute's duration succeeded, when the fluttering of the leaf announced the arrival of the spirit of an alligator, which in its turn was replaced by a duraquara, and so on.

In some instances the good spirit for the time being brought with it the evil one that was supposed to have had some hand in producing the man's malady; and then the wife asked it how it could come and injure a being who had never harmed it, begging it to desist and leave her husband alone. The only answer she obtained to this appeal was a most diabolical mocking laugh.

The Mackunaima, or great spirit, was never called upon by the sorcerer to assist or cure the sick man, but only the subordinate inhabitants of spirit-land.

The sorcerer, or peaiman, undergoes a special training to fit him for his high office. Amongst other pleasant rites of initiation, he drinks a certain quantity of a decoction of green tobacco leaf, until he is driven temporarily out of his mind, and rushes into the forest, where he remains for about a week, fasting all the while. When he returns in his right mind, he is looked upon as a big medicine man, capable of holding converse with spirits, curing diseases by their assistance, and containing within him the spirit of some wild beast. I think in him we see a shadowing of the modern spiritualistic medium.

A little before daylight the peaiman returned from the mountain and turned into his hammock; the spirits all went to their homes; and the poor fever-stricken Indian was left moaning in pain, probably much worse from having spent the night without a wink of sleep. Whilst on this subject I may remark that some Indians, who are adepts in the art of making subtle poisons, hire themselves out to rid their employers of any obnoxious individuals; and these are called kanaimas, because they destroy people in the same way as the bad spirits. This system of poisoning, amongst people who have no protective laws, prevents the strong from oppressing the weak, but works badly in every other way.

Upon a hill-top bordering the Uorora river valley the guide informed me that wild yams grew in great quantities, and that the people of the neighbourhood, when hard up for food, go there to gather them. Amongst the hills and valleys we obtained quantities of small, deliciously-flavoured guavas They were of two kinds, one about the size of a currant,

the other a little larger than a gooseberry, both growing upon low shrubs. They are found in all the valleys of the Pacaraima mountains.

On reaching the Ireng we turned north, and ascended the hills to a village called Quonga, a place situated on a smooth, conical hill, 1978 feet above the sea level, containing some sixty inhabitants. At this place there was a large stilt-legged plover, about the size of a large curlew, called corobara (*Œdicnemus vocifer*), which was quite tame, running about the houses. It made a most singular chattering cry, both in the evening and just before daylight in the morning.

In returning, on our way between Quonga and Itabay, as we rose a narrow pass from one valley to another, to enter on a level plain, we had to go between two large rocks, which only allowed of the passage of one man at a time. In doing so, the guide showed me a number of shot marks on the two rocks, and related the following tale. Pointing to a hill-side to the north-west, he said that there was once a large Macusi village there, the inhabitants of which discovered that a band of Indians were prowling about their place. They therefore organized an expedition to destroy these individuals, who evidently meant no good to them. The prowlers thereupon became alarmed and made off, followed by the Macusis, who tracked them to the west of Roraima, where they found their villages untenanted, and lost all further trace of them. They then gave up the pursuit, and returned homewards; but, keeping on the way a sharp look-out all the while, they became aware of the fact, before reaching the pass above alluded to, that a large force of the

enemy was following them. On arriving at the pass they halted and formed an ambush, and as the enemy was coming up the defile in single line they fired on them, killing one man. His comrades returned the fire and then fled, and the marks of that volley still remain on the rocks. Instead of following up the blow, the Macusis retreated to their village on the hill, and awaited the result with anxiety. A few hours after, they saw a band of the enemy slowly advancing up the pathway to them, when they collected in front of their dwelling, prepared to give them a warm reception. Little did they know of the strategy of the enemy, or the dire fate that awaited them. As the attacking party drew near, the defenders were startled by wild cries proceeding from their rear, and discovered, when too late, a band of savages, who had gone round the back of the mountain, rushing upon them and pouring in a deadly fire. Simultaneously they were attacked by those in front, and, unable to make any resistance, were nearly all slaughtered, two men alone making their escape, to tell the tale to others of their tribe. The guide wound up his story by stating that close to the ruins of the houses lie the bleached bones of the unfortunate victims.

On the pathway between the Yackali river valley and Itabay, in descending a steep place through some wood, I saw numbers of beautiful little frogs, brought out from their hiding places by the rain that had fallen over the country that morning, hopping about amongst the rocks. They were black, with golden-yellow, irregular patterns marked on their backs,

sides, and legs, and no two were similarly patterned. I captured four, and took them with me to Georgetown, where they lived for two months. They were placed in a wide-mouthed bottle, with water in the bottom, and were fed with sugar-ants every morning. These ants were attracted to my coffee-cup in the mornings, and when clustered in the saucer were thrown in with the frogs, and by them gobbled up. The poor frogs met with a sad ending. I went to spend a few days with a friend out of town, and the servant, forgetting to supply them with water, they all dried up into dirty-looking chips.

Near the Yackali we started a brown animal, which ran down a tree stem and bowled off on the ground. It was probably a Galera; the men called it a Hocker.

Land shells, chiefly Cyclostomas, were seen crawling on the path in narrow belts of bush during this journey, tempted by the rain to leave their dry-weather resorts.

After leaving Itabay, on our homeward route, we went south into a lateral valley and then turned northward into another, in which were two deserted villages; then up a steep hill, through a wooded country, to a small open-wooded plain. In the centre of this opening there was a circle of upright slabs of greenish felstone porphyry, through the centre of which the path led. The slabs were from two to three feet in height, and some five or six feet apart, placed in a true circle of about thirty feet in diameter. They had not been dressed, but their forms resulted from the manner in which they split up on weathering, and

they are portions of the rocks of the neighbourhood. On one was a frog-like figure, cut in deeply, showing plainly that these stones had been placed there by the picture-writing people. The Macusi travellers had bent down and broken some of the slabs, thus showing that they do not view them with any amount of reverence. The guide said he did not know anything about them, but supposed that the Mackunaima had placed them there.

During the latter part of our journey the rain fell heavily at intervals, and betokened the near approach of the great rainy season.

From Mora creek we descended the Rupununi to Watama, near Annai village, and on the way I shot two jabiru and a water-haas. The latter landed on the savanna, and I got within thirty yards of it before it saw me; it then tried to gallop off, when a shot from my gun laid it low. The men took it to the beach, and removing its entrails, filled the cavity with water. They then peeled short pieces of mocomoco stems, and with them beat up the water until it became frothy, continuing the process, which they called frothing, for a quarter of an hour. This was done to remove the rank flavour of the flesh, which it did most effectually.

At Annai village I saw a most curious old breech-loading cannon, which I purchased from its Indian owner and brought away with me. It is now in the United Service Museum at Whitehall, having been brought home from Georgetown by my friend Lieutenant Menzies, who at that time commanded the Marines on board Her Majesty's ship "Jason." This

singular piece of ordnance had no doubt been taken up into the interior of Guiana by some Dutch expedition during the last century, although at what date it is impossible to find out.

In the village of Annai I was shown a pen or crawle full of tortoises, all of which had been procured by the aid of a small black and white dog belonging to an Indian. This dog, when taken into the forest, set to work to search by scent for tortoises, and as they are very numerous it would trace out numbers of them in a day, thus keeping its master well supplied with those animals.

Leaving Watama creek we descended the Rupununi to the Essequebo in two days and a half, and landed at the Carib village of Apoterie.

Not far from the mouth of the Rupununi, on its south bank, I visited a small settlement of Brazilian Indians. They wore clothing, and were a curious-looking lot, having their teeth filed into points like those of a saw.

At Apoterie a young Macusi Indian was pointed out to me as a noted murderer, having killed both his wife and his father. He was living with the Caribs for protection, not daring to go back to his own tribe.

On the morning of the 29th of March we left the Carib village, commencing our descent of the Essequebo, and in two days reached the Ouropocaric cataracts, where we portaged all our things and lowered the boats down.

The wild cashew (*Anacardium sp.*), a large and handsome tree, with leaves and fruit similar to those of the domesticated species, was then bearing, and we

often obtained quantities of its ripe fruit from the ground beneath it. The fruit of this wild cashew is smaller than that of the domesticated kind, and is less astringent, having a more delicate flavour.

We came down river rapidly, shooting the cataracts when feasible, impelled swiftly by the strong flow of water where it ran smoothly along.

Part of a day was spent in visiting Comuti rock, and on the morning of April the 7th we ran all the last set of cataracts on the river, coming to the tidal portion in the forenoon. As we approached the Grove the inhabitants of all the houses along the river's bank turned out to see us pass, and greet their friends amongst my crew. My men sang boating songs with choruses by the hour together, keeping time with the strokes of their paddles.

At 5 P.M. on that day I landed at the Penal Settlement, where I was welcomed back to civilization by my kind friends the officials of that place, and thus ended a long, rough, but to me most enjoyable journey.

CHAPTER VII.

UP THE REWA AND QUITARO RIVERS.

Ascend Rewa — Enter Quitaro — Wapisiana Indians — Visit Ataraipu — Mysterious Sound — Quata Monkeys — Perai — Bush-hog Hunts — Start on Journey over Quitaro Savanna — Fly Pests — Wapisiana Salutations — Atorai Indian Village — Carawaimintow Mountain — Paiwurie Drinking Bout — Monkey Hunt — Visit Shea Rock — Black Bees — Farinha — Rattlesnake — Return to Boat — Descend Quitaro on Homeward Journey.

SOME four months after my return to the coast region of the colony I left Georgetown, in company with Mr. Sawkins, and ascended the Essequebo for the second time, on my way to explore the Rewa and Quitaro rivers, and the country lying between the latter and the Rupununi.

In passing I obtained an interpreter for the Wapisiana language from the Brazilian Indians on the Rupununi.

We arrived at the mouth of the Rewa on the 29th of September, 1869, where we parted company, Mr. Sawkins continuing his journey up the Rupununi; having arranged to meet again on the 18th of November, at the village of Apoterie, in order to return to the coast together.

After six and a half days' paddling up the narrow, winding Rewa, we entered its branch, the Quitaro; and four and a half days on that river brought us to the vicinity of the great natural pyramid of rock,

called Ataraipu, first mentioned by Sir R. Schomburgk, who visited it many years ago. Determined to visit the rock, which lay some six miles back from the river, I consulted some Wapisiana Indians, whom we met, on the subject, and they offered their services as guides. They stated that the journey there and back would have to be accomplished in one day, as it would be impossible to spend a night near the rock, on account of a pack of Warracaba tigers that inhabited the district. Knowing that if I returned as they wished, I should not be able to complete my investigations of the place, I had two days' provisions packed, determining to remain a night there and take the chance of meeting the tigers. After walking three and a half miles through the forest we came to a granite ridge, from the top of which Ataraipu could be seen some two and a half miles off in front of us. Crossing the intervening space, we passed over a small stream, called Ataraipuruwow, and ascending, gradually at first, but steeply afterwards, amongst great blocks of granite in the forest, came to the foot of Ataraipu itself, which rose above us at an angle of 70° with the plane of the horizon. We were then at a level of 857 feet above the sea, and the great rock structure rose some 600 feet above us. In glancing up its side I saw little bunches and patches of a small pink-flowered orchid not far up, clinging here and there to the surface of the rock, amongst which numbers of little brown birds were flitting in search of insects; while flocks of brown-headed swallows winged their way round and round the rock. Descending a short distance, we crossed by a spur, joining the base of

Ataraipu with the large conical granite rock on its west, called Coomacaba, the top and western half of which is covered with low trees and shrubs. The part facing Ataraipu is bare, and slopes at an angle of 43° to the horizon, so that I was just able to clamber up, my feet being prevented from slipping by the coarse quartz crystals standing out from the face of the granite. This near view of Ataraipu was a magnificent one, showing the extraordinary massive nature of the granite of which it is composed, and the curious vertical groovings down its sides, furrowed by the trickling of rain water from its top during the course of vast ages. In these furrows grew purplish and gray *lichens*, which gave the rock a singularly striped appearance.

Descending to the Ataraipuruwow stream, we camped for the night. This was a move very distasteful to the Indians, who came only because they thought that our courage would fail at the last moment and we should return to our boats. Seeing that my party had determined to camp, and being then ashamed to retreat, they all, with one exception, did likewise. Tree frogs and night insects kept up such a din around us, that had the tigers come we could never have heard their approach. We were undisturbed, however, during the night, and the Indians said next day that, luckily for us, the tigers had gone hunting in another direction. On the way in we put up a tiger that had been sleeping under a fallen tree-top close to us, which went away through the bush like a flash of lightning. It certainly then looked as if the Indians' words were

going to come true, and augured badly for our night's repose.

Next day we followed a granite ridge to the eastward, which terminated in a bare conical granite structure, called Calishadakeur. On arriving at its base part, I tried over and over again to follow three Indians up the only accessible part in a deep water-groove, at an angle of 60°. Each time I got up some thirty feet, when my footing gave way, and down I slid with rapidity, landing in some shrubs at its foot, which acted as a buffer and broke my fall. The Indians then got some bush-ropes from the neighbouring trees, in lengths of thirty feet each, and tying four together, hauled them up and made the end fast to a species of *Clusia*, growing on the side of the rock, with its roots firmly fixed in a small fissure. By the aid of this rope I got up the steep part hand over hand, and, gaining the level top, had a splendid view of all the surrounding country.

Seen from the granite ridge to the south, Ataraipu resembled a huge conical pedestal with the unfinished sculptured form of a huge lion resting on its top; while from Calishadakeur it more nearly resembled a slightly leaning pyramid, placed on a tree-clothed conical hill.

From Calishadakeur we returned to our boats on the Quitaro, meeting with a great flock of little red-handed marmosetts (*Midas rufimanus*) on the way, playing like squirrels in the tree tops.

About 5 P.M. on that day, whilst resting on the bank of the river after our walk, we were all startled by a loud report, like that produced by the discharge

of a 32-pound cannon, half a mile distant, in the direction of Ataraipu. It woke up echoes midst the surrounding forests and hills, but was unaccompanied by any rumbling like thunder, or by any sensible vibration of air or earth. This evidently was not produced by a fall of rock, but was in some way connected with the great granite masses in the neighbourhood. Many mountains in other parts of the world are known to produce similar sounds, the causes of which have not yet, I believe, been satisfactorily explained.

Not far beyond Ataraipu the narrow, winding character of the Quitaro alters, and rocks and rocky islets, forming rapids and cataracts, occur, causing the river to widen out and become shallower. From one of the cataracts, looking along a wide vista of river, a fine distant view of Ataraipu was obtained. The Indians call that cataract by the somewhat lengthened appellation of Ataraipuwanamarie, which means that it is the cataract from which that rock can be seen. On a group of granite rocks near by we saw some old Indian sculpture, like the image of a sort of rising sun with a human visage, probably representing the head of a deity.

Both black flies and mosquitoes are very troublesome on the Rewa and Quitaro, the latter biting by night and the former by day. These mosquitoes were long-billed, attenuated beings, but bit hard.

The large kind of old witch bird (*Crotophaga major*) was very numerous in the low trees growing along the river's edge, where often a flock would fly in our company for an hour at a time, keeping alongside of us as we paddled up stream. They fed on grasshoppers and

caterpillars, ferreted out from amongst the tree leaves, and produced bubbling sounds now and then, like that made by the boiling of a pot of water.

A small dark-coloured bird (*Brachypetes tenebrosa*) is very common on the Quitaro, and in fact on all the rivers of Guiana, where it is seen sitting on the limbs of high dead trees, patiently awaiting for some insect to pass, which it catches on the wing. It is a stumpy-built bird, and its flight is very bat-like. It makes a hole in the side of a sand-hill, in which it lays its eggs and hatches its young.

Two kinds of monkeys were very numerous, viz. the quata (*Ateles paniscus*), a large black, red-faced spider-monkey, and an ordinary-sized monkey, with black, negro-like face, full beard, and bushy tail, called beeshu.

One Sunday, whilst remaining encamped to rest the men, a small species of red ant attacked us in thousands, and was very troublesome, its sting burning like a spark of fire. In the forest near the camp, I got a lot of small brown ticks upon me, and did not discover them till next day. Each disgusting creature bit me in four or five places, and each bite turned to a water-blister, and then burst, after which it itched dreadfully. In walking through the forest one often brushes against a tree or shrub laden with these horrid insects, when his clothes become covered with them from head to foot before he is aware that one is near him. The only thing to be done then is to take off the tick-laden clothes, light a fire, and hold them close to it, when the ticks, feeling the heat, drop off.

Close to my tent at that place there was the nest of a common dark-coloured trogon (*Trogon melanopterus*), called bowelorou, which merely consisted of a hole scooped out of a large, round termite's nest, built on the stem of a tree. In it were two young ones, which kept up a most doleful whistling all day, while the mother sat on a tree bough near by, being afraid, from our near proximity, to approach them.

The fish, called the perai (*Serrasalmo niger*), which are met with in all the rivers of Guiana, are very numerous here, and took a baited hook readily. They are a little smaller than the cartabac, but very similar in general appearance, differing principally from that fish in the form of their teeth, which are pointed, those of the cartabac being chisel-shaped. They are most voracious creatures, and prey upon all other kinds of fish, going so far as to bite pieces out of the tails and fins of the lowlow, gilbacker, arowpaima, &c., docking down those appendages in some instances to mere stumps.

On the Pobawow, a small branch of the Quitaro, I visited a grove of Brazil-nut trees (*Bertholletia excelsa*), amongst the surrounding forest. One of these, on measurement, I found to be 25 feet 4 inches in circumference, at two feet above the level of the ground.

On two successive days we had kieroonie or peccarie hunts, and being successful, got a plentiful supply of fresh meat for our larder. In the first instance, on becoming aware of the proximity of a herd by their gruntings, as they pottered about near the edge of the river, I landed, and climbing up the steep bank was at once detected by them. Owing to

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SHOOTING BUSH HOGS

the thickness of the low undergrowth I could not at first see one, but they all clashed their tusks together making a most appalling sound, and charging towards me, came into view, where they stood grunting savagely. The first I got my eye upon I covered with my gun, and gave it a charge of BB in the chest, which bowled it over. The sound of the report demoralized the rest, which, with much clattering of teeth and grunting, turned and fled like a whirlwind through the forest, making the ground tremble under their tread.

On the second occasion of our meeting with a herd the bush was more open, and we approached them cautiously. They were scattered about, and I came upon two standing alone, apparently listening intently. I fired at the head of one, but without effect, and, as they dashed off, I was fortunate enough to knock over the other with the left-hand barrel. I then ran with the men in pursuit of the flying herd, and succeeded in killing two more pigs. There must have been at least one hundred individuals in the flock, but they were not of the savage kind, and so after champing their teeth only once they fled.

There are three kinds of bush hogs, or peccaries, one, the smallest of the three, known as the Abouyah (*Dicotyles torquatus*), and the other two as Kieroonies. The abouyahs never go in large flocks, but are only seen in small bands of from two to five in number. Of the two kinds of kieroonies, one with light-coloured hair upon the throat and under the lower jaw, is known as the white-lipped peccarie (*Dicotyles labiatus*). These are the most dangerous to meet, and when found at

certain seasons, accompanied by their young, are exceedingly savage, and charge the hunters, causing them to take to trees as the herd sweeps by. After making one of these charges they frequently wheel round and recharge over the same ground.

The other kind of kieroonie has no distinguishing marks, but is of a uniform dark colour.

They are furnished with a gland on the back, which gives out a most disagreeable smell, and it is by no means pleasant to one's olfactory nerves to go amongst a flock, or even over ground lately occupied by one.

The day before we arrived at Ataraipu landing we observed a large deer feeding, on a grass patch close to the water's edge, which I fired at from a long distance. It made a bound into the thicket and disappeared. We landed, and found it badly wounded, not twenty yards away. Springing up, it made off again, and after running about 200 yards was brought to bay by my dog, in a shallow pool of water, where one of the men killed it with a cutlass.

The party of Wapisiana Indians, who had been with us to Ataraipu, had gone on before, and above the cataracts we overtook them. They were then busily engaged in picking out and eating the larvæ of a wasp, from the comb of a nest of that insect, which they had knocked from the overhanging branches of a tree. The children especially seemed to enjoy the little white grub-like larvæ, as a civilized child would sugar-plums.

On Saturday, October the 16th, we came to the landing of a path which led to the village of our Indian friends, and from that point our land journey

commenced. After placing our stores in packs we started with the Indians for their place, and, walking over an undulating country through forest for eight and a half hours, came out on the fine open savanna, there clothed with fresh green grass. The air was clear and refreshing, and everything looked bright after our toilsome forest march. On the way we passed a large tree, on the stem of which were numbers of large beetles (*Buprestis gigas*), with elitra of a beautiful metallic lustre. The Indians caught a number of them, and stripped off their wing-covers for the purpose of making ornaments for personal adornment. They string them on cotton-thread, and tie them round their ankles when dancing.

We were not to enjoy the pleasures of the open country long without some drawback, and this came in the form of myriads of small flies with white legs, which swarmed around our heads, alighting in clusters round our eyelids, in our ears, and on our necks, to drink the moisture of the skin. They tickled me so that I found them more annoying and persistent in their attacks than regular biting flies. To be constantly employed brushing them off was a most tiresome occupation.

We spent one day at Maturuwow village, and then with the head man of the place, old Yacobus, as guide, my own men, and seven Wapisiana Indians, I started on my journey for the Carawaimintow mountains. Traversing an undulating savanna country, dotted with purplish rounded hills to the west, and bounded by an even line of forest on the east, we reached the village of Curawashinang, to which place some of my

Wapisiana carriers belonged. From this place there is a fine view to the north, of the high mountains lying in an east and west direction, between the Rupununi and Quitaro rivers, which, being distant, are of a fine blue colour. Far off to the west is a singular high, isolated mountain with three peaks, called Saererie, which is a landmark in this region, being visible from all parts of the district.

Two of my men, having become disabled on the way, had to be left at this village, and their places filled by Indians. One had injured the sole of one foot, and the other had both thighs much swollen.

In apportioning the loads to the Indians, one man laughed with scorn at his being supplied with what he considered to be a light one, and begged to be allowed to carry two. These were given him, and weighed conjointly fifty pounds. He was bow-legged, and as he walked along before me I could imagine that I saw his legs becoming more bowed under the weight on his back. This load he carried manfully for nearly a week before anything was used from it to lighten it. This shows what a vast amount of strength and endurance these people possess, for to carry such a weight day after day, in a country not more than 2½° north of the equator, is hard work indeed.

Our course lay south through two villages, and on to a third, called Watertecow, the Watuticaba of Schomburgk.

Our approach to a village was always announced by some of our Indians playing a sort of tune on their bone flutes, and our entry into it by their shoutings. They would then enter the principal house, and sit

down in a circle. The chief man of the place would rise from his hammock, walk up behind one, and tap him on the shoulder, muttering a few words of salutation, which were responded to. He then passed on to the next, and solemnly went the round of the circle, holding a slight conversation with each, standing up behind the back of the man with whom he spoke. That being over he retired to his hammock, and another man of the place went the round in the same manner.

The Macusis acted differently; they entered the houses noisily, giving three stamps on the ground, and uttering in a deep tone of voice the sounds, "Too-too-too-hah-hah-hah." The people who greeted them did not touch them, but stood up in front and held short conversations. These proceedings were evidently according to rules of etiquette amongst them, and the solemn manner in which they went through them amused me greatly. As the man who stood up addressed the other, pouring forth a long and rapidly-worded address (glancing at me through the corners of his eyes now and then), the Macusi addressed would keep up a constant fire of words, such as, Enah! Enonah! Enonombay! Oah! &c., over and over again. These replies are equivalent to our Yes; Yes, indeed; Yes, truly, &c.

At one of the villages through which we passed there was an Indian who spoke a little English, having worked at some wood-cutting establishment near Bartika Grove. He put on a shirt, trousers, and hat, and tied a red handkerchief round his neck. Advancing to greet me, he said, in an inquiring tone

of voice, "You come?" I tried to enter into conversation with him, but he appeared too excited to understand what I said. Seeing some bush-hog meat drying on a barbacue, I remarked, "You have got some bush hog, I see," at which he appeared much startled, replying in a loud and emphatic tone, "No; no bushalog da dere."

I felt thirsty, so I said, "Have you got any water?" and received the same reply, "No; no water da dere." That roused me, and I said, "Confound it, get me some water." These words had an electric effect; he dashed to a corner of the house, nearly breaking his neck over a paiworie trough, and returned with a calabash of water.

My evening and night at Watertecow will long dwell in my memory, from the way in which I was pestered by white-legged flies in the daylight, and sandflies and mosquitoes at night. It was impossible even to write down a single note of the day's proceedings, as both hands had to be employed in defending my head from these insects. Thinking to escape the fleas in the Indian houses, I hung my hammock to posts outside, and thus fell into the jaws of mosquitoes, which proved to be equally bad neighbours.

From Watertecow we went west, to a village called Parearabatonwow, then south again, past the singular granite hill called Tomboro, which rises to a height of some 500 feet above the plain, and has but little vegetation upon it. Near its foot we passed through the provision grounds of the Parearabaton people, in which the cassava plants grew to the remarkable height

of fifteen feet, whilst Indian corn also attained an equal altitude.

Not far south of Tomboro we entered the forest, leaving all the savanna country behind, and following a very rough path arrived at an Atorai Indian's house called Cotoewow, where we spent a day encamped. This house was large, with a cylindrical-shaped lower part, and conical roof, slightly flattened on top. Around the inside, sticking in the palm thatch, were an immense number of jaw-bones of the red howling and quata monkeys, all of which had fallen victims to the poisoned arrows of the blow-pipe of the owner of the place. Indians, as a rule, have a curious habit of hanging up or sticking against the rafters of their houses the bones or skulls of various small animals which they have killed and eaten.

The inhabitants, ten in number, were of a light yellow colour, and much fairer skinned than the Wapisianas and Macusis. This may be explained by their not being so much exposed to the sun's rays as those tribes that live on the open savannas. Their language, though different, resembles somewhat that of the Wapisianas.

Accompanied by the head man as guide I walked to the Carawaimintow mountain, and ascended it to a height of 1200 feet, along a hunting path, returning to the camp late in the afternoon, after having been ten hours on foot. On the way we passed a large tree, the stem of which on one side was covered with an army of gray caterpillars. The guide drew my attention to them, and then standing some three feet away shouted out "heigh," upon which every one of

the vast body threw up their heads and front portion of their bodies at right angles to the tree, and simultaneously flopped them down again. This they repeated every time the word "heigh" was shouted at them, but took no notice of a sharp whistle or other less quickly uttered sound.

Not far from the house, on our way in returning, the guide showed me a small hut in which he manufactured Wouralli poison for blow-pipe and other arrows. The chief ingredient in this substance is the juice of a plant (*Strychnos toxifera*), which grows in the Canucu mountains, but not in the Carawaimintow district. In the hut was a long fireplace made of stones, a large funnel-shaped gourd used as a strainer, and a small basket.

At the village they manufactured that fine purple madder pigment called Caraweru. It is made from the leaves of a creeper (*Bignonia chica*), which are dried, soaked in water, and beaten up and boiled in earthenware pots, with the bark of a certain forest tree. The pigment, in hard little pieces, is packed in small boxes ingeniously fashioned from the young leaves of the Curua palm (*Attalea speciosa*). Some of the leaves of the Chica which I pulled turned purple in half an hour after they were packed.

Some of my men made a famous swing from a long, stout bush-rope hanging from the branches of a large tree to the ground, which was some fifty feet in length. They tied a bar across its end about three feet up, upon which one man at a time took his seat, while another drew him back and then launched him forward with a shove, so that he swung majestically backwards and forwards through an arc of some sixty feet.

Leaving Cotoewow we went in a south-west direction through the forest, crossing two large streams, one called Totohwow, the other Sabernawow, and passing through one village came to a second called Heherap, at which we put up for the night. At this place there were two somewhat similar looking curiosities, one being an old negro woman, the other a young quata monkey. The aged negress had snow-white, woolly hair, and no clothing except a bead apron like the Indian women, with whom her black colour and different figure formed a most curious contrast. She differed from them in her waist, which was smaller; her shoulders, which were narrower; and her hips, which were wider. This poor old creature—a runaway slave from Brazil—had lived for many years amongst these people, and had adopted their language and customs. The quata monkey was not unlike a young negro in the face, and its body was covered with very sparse black hairs. It sprawled about on the ground like a helpless baby, and by its actions begged most piteously of any Indian woman who passed it to be taken up and nursed.

Three-quarters of a day's walk from Heherap brought us to a village called Waru, situated in a small savanna, from which Wintower and Wassarie mountains could be seen to the southward, situated in a vast forest-covered country. Near this place we crossed a path which leads to the Taruma Indian country, on the Upper Essequebo, which was made by those Indians who used to come from their part to barter with the Wapisianas, giving cassava graters and hunting dogs in exchange for calico, axes, knives,

&c. For some years they had not used the path, and now the Wapisianas go to their country viâ the Cuyuwini river instead. From this place we went in a southerly direction to a small branch of the Takutu river called Takutuwow, and then returning and following the westerly continuation of the Taruma path came to the head waters of the Rupununi river, bordered by a narrow belt of trees, where that stream was only five feet wide and one foot deep. Just before reaching it we came out of the forest on the great savanna which stretches north to the Canucu mountains. From this we took a path leading north-east, and in two days reached the village of Parearabatonwow, near Tomboro, stopping one night at an Atorai village called Waripuow, where amongst the Indians dwelt two men and a woman, who were half negro and half Atorai. One of them spoke English very well, from having worked on woodcutters' grants down near the coast. He told me that his father was a negro cook at one time to Schomburgk, and had afterwards settled at this place. His mother, whom he pointed out to me, was a small-sized, ordinary-looking Indian woman. This man was very dark complexioned, and had straight hair, resembling a Madras coolie in features and tint. His brother was much lighter, but had a more negro-like head, nose, and lips, and frizzly hair, while his sister could only be distinguished from the other Indians by her frizzly, curling hair. His children were dark, but with Indian-shaped countenances, whilst his brother's children still showed the negro cast.

On approaching the next village we met a band of

fifteen Atorais, headed by a man beating a native drum, who it seems came to meet us. They turned and marched with us to their village, the drummer beating away at his instrument in a most lively manner. It turned out that they had a little drink on hand, and thus invited us to join in the festival. My men and Indians did join in, and drank as fast as the horrid decoction could be handed round. Weak as paiworie is in the amount of alcohol it contains, a bucketful or so will make a man drunk. But as no man's stomach, not even an Indian's, can hold that amount at one time, the drinkers resort to a method for obtaining a good "drunk," which by long practice becomes feasible. They absorb it in such vast quantities that the stomach becomes overladen, and returns it by the way it was poured down, leaving, however, all the contained alcohol in the drinker's blood or brain. As a quart or so is returned the women hand a fresh supply to be swallowed, and down it is gulped, till a state of intoxication is reached. Hard old drinkers do not seem to feel sick during the operation, but laugh and seem to enjoy the fun of vomiting.

The band of Wapisiana Indians with me were very jolly fellows, full of fun and laughter, joking and chaffing each other incessantly, so that at their urgent solicitation I remained a few hours at the place, to enable them to indulge their natural propensity for the beer of the country. My men did not, of course, drink to excess; but my Indians did most effectually.

When I was ready to depart they formed a deputation, with the guide Yacobus at their head, to ask me to allow them to stay all day and night, which I

refused, ordering an immediate start. I had my doubts about this order being obeyed by Yacobus, without whom neither I nor my men could have found our way on, but was most agreeably surprised to see the promptitude with which he responded to my call. Hoisting his load in a drunken way, he started, and, as he went along the path, would now and then turn aside to vomit, look at me and grin, and then resume his erratic walk.

From Parearabatonwow village we struck off north-east, without a path, and in two days reached the village of Curawashinang, where I found that my two men left there had quite recovered. The walking without a path was very rough, from the large stalks of a curious tufted grass growing thickly over the savanna, causing one's foot to come down unevenly, and frequently twisting the ankle.

During this journey the Indians had a monkey hunt of a most exciting kind. Two unfortunate gray monkeys had got into a small patch of semi-detached wood, part of a narrow belt along a small river, where the Indians espied them. Being much in want of meat-food at the time, and not relishing our salt fish, they determined to obtain these monkeys for their dinner, and went to work at them with sticks, stones, and bows and arrows. The monkeys thus pursued flew wildly from tree-top to tree-top for a time, and then cunningly tried to hide, but without avail. Smart as they were, they were no match for the gang of savages, and after half an hour's shouting, laughing, stone-throwing, and arrow-flying, the poor monkeys' corpses were in the hands of their assailants.

As we came along in one place the Indians set the dry savanna grass on fire, and as the low wall of flame advanced before the wind, throwing up puffs of dark smoke, numbers of large savanna kites (*Polyborus cheriway*) sprang up, as if by magic, from low neighbouring trees, and hovered in advance of the line of fire, on the watch for snakes, mice, rats, lizards, &c., that were flying before the destructive flame. One of these birds dropped suddenly in the grass close to me, and as quickly rose again, with a rat in its talons, which it carried to a low tree, and then giving it a peck or two swallowed it whole.

In a water-hole, at the foot of a group of Itah palms, the Indians obtained numbers of the nuts of those trees by diving. They were small, being covered with a set of beautifully-arranged plates of smooth, brown outer shell, which was easily rubbed off by the hand, disclosing a thin coating of soft, yellow pulp, having a sour, cheesy, but rather pleasant taste.

On a low ridge of solid granite, which we crossed in the way, I observed some pink-flowered orchids, two kinds of cacti, and a curious little red plant, with jointed cell-like stem, to which was attached a coating of a hairy cotton-like substance.

My cook, a white Creole, named Griffiths, was seized with fever on the last day's march, and by the time we reached Curawashinang was completely exhausted. Soon after he became delirious, and I felt quite alarmed about him.

At Curawashinang I shot a small bird, which is very common all over the savannas. It flies very steadily, and offers a capital shot when on the wing.

It is a large species of starling (*Sturnella ludovicianus*), with a yellow breast, black throat, and snipe-like feathers on the back. It is provided with a long hind toe on each foot, terminating in a long spur-like claw, and its beak is sharp and curved.

The night we spent at Curawashinang village the savanna grass was on fire some five miles to the northward, and as the blaze flashed and flickered in the dark night it formed a fine sight, dying away in one part and shooting out in another, the whole forming a long line. When low, one could fancy that it was the lights of a large city on the plain.

On gaining Maturuwow, the place from which we originally set out, I left my servant in the care of William, and went on to the northward to Shea mountain; then on to Cotoewow river, a branch of the Rupununi; and returned to Maturuwow, after an absence of three and a half days.

From the top of Shea rock, an enormous mass of solid granite, a fine view of the surrounding country is obtained. Near its top, on the south side, there is a small shelving cave, the bottom of which is covered with dusty loam, and in and upon this loam are numerous bones of deer, fish, tortoise, &c., the remains of repasts of Indian parties who, from time to time, for unexplained causes, make visits there. Under the shelving roof of one part of the cave was a bees' nest, built of a brown, leathery-looking substance, part of which our guide knocked down with a stick, and seizing as much honeycomb as possible, rushed off to us with it, accompanied by a buzzing crowd of small, black

bees. Though they did not sting, yet they nipped with their mandibles, and followed us about as we partook of their honey. The honey cells were large and irregularly formed, and the honey had a slightly acid flavour, while the wax was of a dirty-brown colour. These black bees (*Melipona sp.*) are very common, and frequently when we had shot game, and left it hanging to a tree for a short time till it was convenient to carry it away, we would find it covered with them, all busily engaged feeding on its flesh.

Scattered about in the vicinity of Shea are a number of Indian houses, at one of which lives a half-breed, between a negro and Indian, who, like the Carib half-breeds, has short curly hair. He had the skins of two large jaguars which he had shot, hanging up in his house. In hunting one of these jaguars he badly wounded it with the first shot, and before he had time to load again the animal chased him. He had to dodge about amongst the low curatella trees for a considerable time, with the jaguar close upon him, before he got a second charge in his gun, with which he finished off the animal.

At his place I saw for the first time an article of diet called Farinha. It is made from the meal of the cassava, which has been soaked in water for a considerable period, baked on a large, open oven, and stirred about all the while. This process hardens it and causes it to adhere in little pellets, as hard as pebbles. On the Amazon and its tributaries this substance is the chief staff of life.

At Shea village old Yacobus and three other Indian men commenced drinking paiworie. By 10 A.M. they

were all tipsy and commenced dancing with measured tread, round and round the house, and up and down, dressed out in feathers and paint. When I returned to the place in the afternoon I found them still dancing in a very tipsy condition, while old Yacobus was actually foaming at the mouth. The four simpletons cut a most sorry and unmanly figure, but evidently enjoyed themselves. When we got back to Maturuwow on the following day, Yacobus did not seem the worse for his debauch, for he immediately started off to shoot a deer for me, taking his wife with him, with a cartowerie on her back to bring back the game, with which sure enough he returned in the afternoon.

In getting some of the provision packs overhauled in preparing for a start on the following day on our journey to our boat on the Quitaro, we discovered a rattlesnake, three feet in length, coiled up amongst them. These packs were under one end of my awning, under which Griffiths, who was left there ill with fever, had slept.

The snake had made its home within a few feet of Griffiths' back as he lay in his hammock, and it was a mercy that in moving about he had not come in contact with the reptile. An Indian shot an arrow into it, which passed through its neck and into one of its coils. In this harmless position I teased it with a stick, at which it became enraged and bit its own body, the large poison-fangs only entering a short distance through its scales, owing to its position, preventing its getting a fair bite. Its poison, if it entered its body, had not the slightest effect,

and after a short time I knocked it on the head with a stick.

Soon after starting from Maturuwow, on our way through the forest to the Quitaro, I felt the chills that precede an attack of fever come on, followed by ague-pains in both arms and legs. Though I walked as fast as I could, under the circumstances, I could not "turn a hair," but my skin was dry and parched. I know of nothing more unpleasant or of harder work than walking under such conditions. Yacobus, who was walking in front of me, once or twice gave a deep groan; then stopping, he took my hand and put it on his forehead, to show me that he was suffering from headache. His skin was also dry and hot, though he was carrying a heavy load, and I then knew that he was a victim to fever like myself. Showing him that I was in the same condition, we gave each other a mutual look of sympathy, which lightened considerably each one's load of woe, and continued our weary walk. After five hours' walking in this feverish state, a profuse perspiration broke out, and the enemy left me.

On arriving at the river I found most of the Curawashinang Indians encamped there, and what with the barking of dogs, screeching of children, and talking and laughing of people, the place was almost unbearable. One woman there applied one of the most extraordinary remedies for ophthalmia, to her child of five years of age, that I ever heard of. She actually rubbed the juice of a large red pepper into both its eyes, which made the poor little creature scream and cry most bitterly. I abused the woman for her

cruelty, but it was too late to stop the operation and had no effect, for she did not understand a word I said.

On the 9th of November, the day after our return to our boat, we commenced our journey down the Quitaro, and on the 18th of the same month arrived at the Carib village of Apoterie, at the mouth of the Rupununi river, where I found Mr. Sawkins waiting for me, having just come down from the foot of the first set of cataracts on the Upper Essequebo.

We descended the Essequebo in company, and arrived at the Penal Settlement on the 29th of November; and thus terminated my fourth expedition.

CHAPTER VIII.

UP THE BURRO-BURRO, AND ACROSS TO THE POTARO.

Leave Settlement — Ascend Siparuni — Water-boas — King Vultures — Poisonous Water-snake — Ascend Burro-burro — Game — Surama — Bell-birds — Porcupine — Visit Annai — Have Shot at Tiger — Start on Journey to the Potaro — Indian Legends — Cara-cara — Monoorie Ants — Owenteik — Indian Game — Frog Pits — Kibibies — Enapowou — Descend Potaro — Discover Kaieteur Great Fall — Partamona Indian Village — Reach Tumatamari — Arrive at Settlement.

ON February the 10th, 1870, I again left the Penal Settlement with two boats, the "Cuyuni" and "Waramambo," and, ascending the Essequebo, reached the mouth of the Potaro river on the morning of the 17th.

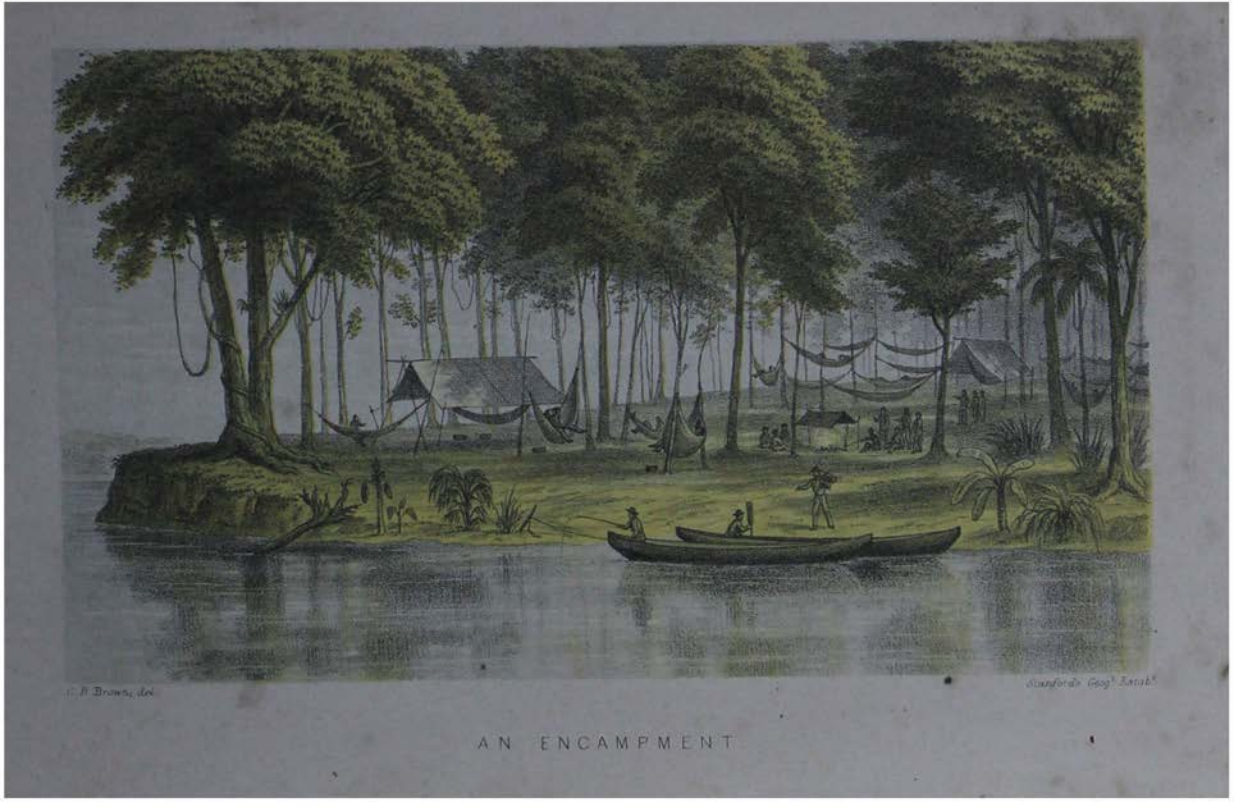
During my journey up I met with a severe loss in the death of my faithful little dog Chickerine. It had accompanied me on all my journeys, from the time it became attached to me on my return from the Mazaruni till its untimely death, hardly ever being out of my sight for a moment. For deep attachment and affection it was one dog in a thousand.

My first object being to explore the Potaro river, we accordingly entered it, accompanied by some Indians whom we met on the Essequebo on their way down to the Demerara river. They told me that it had falls of great magnitude which would not admit of the ascent of my boats; and on our arrival at the foot of the first cataract (four miles up), called Tuma-

tamari, I found their information to be perfectly correct. This cataract has a total height of twenty-four feet, and is divided into two portions by a rocky island. The northern portion is very precipitous, the river thundering down it over a long slope; the southern portion is at first perpendicular for a few feet, and then follows a similarly steep descent. My boats being old, heavy, and not strongly built, we concluded that they would not stand the strain of dragging over the rocks without serious injury; and a hill prevented our taking them round overland.

On entering the Potaro one is struck with the intensely dark colour of its water, which resembles a strong decoction of tea, owing to the tannin derived from vegetable matters which it contains.

I made up my mind to abandon the idea of ascending it, but to continue up the Essequebo and ascend the Siparuni instead, crossing from thence by land to the Potaro head, and then descending it in woodskins. Accordingly, we re-entered the Essequebo, and after four days' toilsome ascent reached the mouth of the Siparuni. This river is about 100 yards wide at its entrance, and also contains black water. It is comparatively free from cataracts, and those upon it, with one exception, are diminutive. About six miles up we passed the mouth of a branch on the south, called the Burro-burro river, and on the third day came to a place where the river branched. Taking the northerly one to be the main river, we ascended it for a day's journey, amongst small cataracts and rapids, and found it decrease so rapidly in size that we concluded we had gone astray. We therefore



AN ENCAMPMENT

returned to the other branch, which proved eventually to be the main river.

We were altogether eleven days on our journey up the Siparuni, and traced it out until it became so narrow that the old trees, which had grown on its banks and fallen, lay quite across it. Numbers of them were under water, and as the river was rapidly falling, we feared that our boats would not be able to pass over them in returning. When at last we reached a high cataract, produced by a bar of greenstone, we gave up all hopes of going farther, and turned back. Though there were numerous signs of Indian travellers having been on the river, yet we met with none, and were disappointed accordingly, being much in need of Indian assistance and information. Before us was the escarpment of the sandstone mountains, somewhat similar to that on the Mazaruni, but less precipitous.

During our ascent of this river we saw four large Water-boas or Comudies (*Eunectes murinus*), three of which I killed by shooting them in the head. The first I fired at was shot in the body, and made off into the water seemingly but little damaged. We had rather an amusing scene whilst killing one of these snakes. It was coiled up on the bank at the end of a fallen tree, which, sloping into the water, formed a bridge for us to approach by. Seeing by the swollen condition of a portion of its body that it was digesting some animal, and was consequently in a sluggish state, I walked up the log, gun in hand, to kill it. I fired at its head, which was pretty nearly hidden in its coils, and thinking I had

killed it, approached nearer; when of a sudden it darted out its head to within a foot or two of me, straightening out one or two of its inner coils. Luckily it could not straighten out more, or it would undoubtedly have seized me. It is almost superfluous to state that I then fled and, in so doing, dashed against one of my men who stood at the head of the sloping log, causing him to collide against a man next him; this second man fell against a third who, having unfortunately nothing to support him, tipped over into the water off the log, midst shouts of laughter from those left in the boat. When I found my retreat thus cut off by the men, I turned to face the snake, and found that it was not giving chase, but that its elevated head offered me a splendid shot. Putting a charge of BB into it I had the satisfaction of terminating its existence.

One of these snakes measured sixteen feet in length, and twenty-two inches in girth round the largest portion of the body, although it appeared much larger than those measurements indicated. Its back was black, softening on the sides to gray, and then to yellow on the underneath portion. Along its sides were large yellow spots, placed in a line at irregular distances apart, while along the sides of its head, over each eye, was a broad band of a brown colour. Its tail ended abruptly in a round blunt end, and about six inches back, on the under part of its body, were two little toe-like processes, one on each side of the cloaca, each terminating in a bird-like claw.

In returning down river past one of these dead snakes, which we had slain on our way up, I saw a

pair of king vultures (*Sarcoramphus papa*) in charge of the corpse. It is a well-known fact that where the carcass of a Comudi snake is, there will two king vultures be gathered together.

We met with a large water-snake of another kind, called the Haimaralli, which is said to be poisonous, and to attack people venturing into the water in its vicinity. Its poison does not act rapidly, but causes the bitten limb to decay gradually away till death releases the sufferer. This snake is of a blackish colour, marked with brown.

The bird-stuffer, young Paulie, whom I had taken with me to procure specimens of birds, shot a small bird on this river called a Maam-licken, so called by the Arowaaks from its similarity in appearance to the small Tinamous. It does not, however, belong to that family from the fact of its having scansorial feet.

During the greater part of our journey on this river we experienced very wet weather, not a day passing without rainfalls, either in heavy downpours or light showers. The sun seldom shone for any length of time, and everything was damp and sodden. From the time we entered the river until Sunday, March the 6th, there was not a single chance of getting clothes dried, so that when the sun shone, upon that day our camp resembled a laundry, all hands being busy washing and hanging up clothes to dry.

When, on the morning of March 9th, we reached the mouth of the Burro-burro we turned up it, and in one day's journey reached the landing of a Macusi village. The village itself was some distance back in the forest, and contained two large houses, one having

an upper story. On the ground floor of this occupied house was the grave of its late owner. We had to remain a few days at the village for the arrival of a man who was to go on with us as guide, and in the meantime I despatched one of the boats, the "Waramambo," to the Penal Settlement to bring up the remainder of our supplies which had been left behind.

One night, at our camp at the landing, we set fire to the bottom of a large hollow Mora tree, and soon the whole of its decayed inner portion was in flames, which rushed out at its top with a loud, roaring noise, throwing up vast quantities of sparks, which fell in curved showers like fireworks, forming a most beautiful sight. The branches burnt off at their bases an hour or two after the fire had got well under way, and came to the ground with a heavy crash, while the stem burnt all night, and fell towards morning with a most terrific noise. The roaring of the fire was heard by the village Indians, but as it sounded high in the air they could not imagine its cause, and became greatly alarmed. Three of them came out to us in the middle of the night to ask what we thought of the extraordinary noise, and as they approached our camp at once learned the cause. They stated that they thought that the "world was on fire."

With a Macusi in his woodskin as guide we continued our journey up the gloomy winding Burro-burro, and in two days reached a branch of that river coming in on the north, called Sipariparu. One day on this river brought us to a village, which we visited for the purpose of obtaining woodskins for our further journey.

In passing a large inlet on the south bank the guide said that some Kanaimas of the Partamona tribe, a branch of the Ackawoise, lived far up it, who only came out to kill or *kanaima* members of the other tribes.

We lost much time during the two days on the Burro-burro in cutting with axes some very large and hard dead trees, which lay across the river from bank to bank; and on the Sipariparu had to cut through the stems and branches of a soft-wood tree, which grew out from either bank and met in the middle of the stream. A large corial, containing fourteen Caribs from Itaballia, overtook us on the way, some of whom we pressed into our service, making them share half our cutting work. They caught lizards of a peculiar kind with slip-knots on the ends of sticks, and placed them in baskets previous to feeding on them when a sufficient quantity had been obtained. These lizards inhabit the stems of trees on the water's edge, and can half swim and half run on the surface of the water. They are called Yamourous, and are not unlike small Iguanas.

The head man of the village on the Sipariparu, a feeble old fellow, who bore a bad character as a destroyer of his kind, felt ill at ease at our visit. He provided the necessary woodskins, and seemed not to care for payment, only wishing us to depart from his place. We did so, and returned to the Burro-burro. Leaving my boat there, with Captain Peterson and another man in charge, I went up that river one and a half day's journey, and came to the landing of the village of Surama. I killed on the way a fine

Muscovy duck and a bush hog. Game was plentiful, and beaten paths of Maipourie or Tapir (*Tapirus Americanus*) came to the river from all directions. Tapirs are very fond of the fruit of the hog-plum (*Spondias sp.*), and visit places where these trees grow for the purpose of eating their fallen fruit. Birds of edible qualities were also numerous and tame, which was to me a matter for wonder, seeing the number of Indians living near by who constantly hunted this part. White-headed Marondies (*Penelope pipile*) were very common, and at daybreak in the morning, when flying from their roosting places, produced a curious rattling noise with their wings. Small and bright-plumaged Toucans (*Pteroglossus aracara*) were also frequently seen.

On this part of the river the heavy forests of Mora and Greenheart (*Nectandra Rodœi*) gave way to growths of a small and graceful bamboo, which was exceedingly pretty. Amongst the bamboos were vines, long climbing grasses with sharp cutting edges, called razor grass, wild canes (*Gynerium saccharinum*), and wild plantains.

The village of Surama which I visited was $2\frac{1}{2}$ miles from the river, in the midst of a large savanna, from which fine views of the surrounding mountains were obtained. At one of the houses I obtained the pods of the Simiri, or Locust tree (*Hymenæa courbaril*), and some seeds of the Cucurite palm (*Maximiliana regia*). In the former, around the seeds, is a dry fluffy substance of a light, yellowish colour, which is good to eat, tasting not unlike a dry cake, being sweet, and melting in the mouth. On the nuts of the

latter is a yellow, juicy pulp, which is sweet and pleasant to the taste.

I formed a camp at the Surama landing, and, as I intended starting on my walking journey from it, I sent back all the available men and woodskins to the boat, to bring up stores, whilst I went on up river to explore, taking only the guide, his boy, William the interpreter, and another man with me. The river was exceedingly narrow, and in one place obstructed by granite rocks, over which the canoes had to be carried. Whilst this operation was being performed, early in the forenoon, I stretched myself out on a rock on my back to enjoy the cool shade of an overhanging tree, and, gazing up to the sky, to my astonishment, saw a planet which, owing to the remarkable clearness of the atmosphere, shone of a white colour, like the moon when seen in the daytime.

On the way we heard numbers of bell-birds (*Casmorhynchus carunculatus*) calling in the surrounding forest; wishing to obtain one I landed, and, guided by their calls to their vicinity, stood for some time under a tree in which one was perched before I discovered its whereabouts. The one I shot proved to be a male in full plumage, of a snow-white colour, with black beak and eyes, and with a black, leathery excrescence of nearly an inch in length, rising up from the top of the base of its bill. When close to these birds the sounds they produce are of two kinds, one resembling the word *Dór-òng*, and the other *Kóng-kày*, the latter syllable of each being prolonged. There is a sort of ventriloquism about the utterance of the *Dor-ong*, which is made when the bird holds its

head up, that renders it almost impossible to find the exact whereabouts of the bird when using this form of call; when, however, it puts its bill and head downwards, and calls *Kong-kay*, it can be seen at once. The females are of a gray colour, with a yellowish cast.

I saw a dead porcupine (*Cercolabes prehensilis*) on the edge of the river, which was of a gray colour, its quills being small and yellow tipped with black. Its head was extremely porcupinish in form, but its tail was prehensile.

A very large and lofty species of Bamboo (*Bambusa sp.*) grows along the river above Surama, which, unlike the generality of bamboos, has each stem growing singly from an isolated root.

On the second day after leaving Surama we came to a landing place, beyond which the river was too shallow and rapid for woodskins. We therefore landed, and following an Indian path, ascended a steep hill to a height of 500 feet above the river, amongst the mountains. One hour and a half's walking brought us to a Macusi village, called Archiecullock, from which there was a fine view looking west up the wooded valley of the Burro-burro, nestling on the sides of which were two distant villages. A little Macusi boy, some seven years of age, took a fancy to me, and followed me about everywhere, talking the whole time, but seemingly much astonished at my not being able to understand his conversation. As a rule, all Indian children and some youths fled at my approach, being unused to a creature with a white skin; and this made it all the more extraordinary that this little boy should be so friendly. When preparing to leave

the village, I got the interpreter to ask him if he would like to come with me. He seemed delighted, and ran to ask his mother's leave; but as she was not in the house, he tried to get his little hammock untied, so as to be able to accompany me. As it was tied tightly and too high up for him to reach, he came back to me in tears to say that as he could not get his hammock he could not come.

At this village there was a man whose head was bent down on one side almost to his shoulder, from an injury to the sinews of his neck, produced by the bite of a tiger. He and another Indian were returning from hunting when a jaguar (*Felis onça*) sprung upon him and bore him to the ground. His companion ran at the beast, which jumped off the prostrate man to attack him, when he fired and killed it. He then looked at the fallen man, who was insensible, and thinking him dead, left him and returned to the village. At nightfall the people of the place were astonished to see the wounded man crawling slowly to his home. After a long illness he recovered, but the sinews of the neck being injured, he never could straighten his head again.

Five fine handsome young Macusi men came out to our camp, who, on learning that we were going by land from Surama to the Ireng, informed us that the people of Quonga in that district were dangerous, and had recently killed a negro who came amongst them.

On returning to Surama landing, I spent two days there, and then went in and took up my quarters at the village. My men were employed making journeys from the landing to the boat, to bring up stores for

our land journey; and on their last trip down I had three small woodskins placed inside of three large ones, so as to economise labour. These were to remain till the "Waramambo" arrived to bring up her men and stores.

At this time the Indians of the district were having a grand fish-poisoning excursion somewhere in the neighbourhood, and it was with great difficulty that I could get any assistance from them. I, however, prevailed upon the son of the aged, wrinkled head man of Surama to go with me, as guide, by a roundabout journey to Annai, on the Rupununi, and back. We were a day and a half going across, and passed through two large villages, one at which we stopped a night being called Palearouta. It was composed of seven large houses, two of which were raised on posts, and one had a sort of verandah in front. From our leaving Surama savanna, till we came out on the Rupununi savanna, most of our way lay through bush, swarming with horrid ticks of all sizes, so that I had to be constantly picking them off my clothes.

The evening I spent at Annai was delightfully cool, and the dove-coloured glow that spread over the sky as the sun sank behind the western hills was more marked and beautiful than usual. Waking about an hour before sunrise next morning, I watched the thin strip of waning moon rise above the horizon, following on the steps of the bright morning star; and saw both grow paler and paler, fading away as the purple morning clouds gathered above the horizon before the rising sun.

Leaving Annai, guided by an Indian, named Jermain,

we struck northward through the forest, and after nine and a half hours' walking, got back to Surama, where I learned that the "Waramambo" had arrived at the place where I left my boat. I was detained four days at Surama getting things ready for our overland journey, and experienced great delay in having to send so far down river to our boats, for owing to the fallen timber they could not be brought higher up.

In crossing the Surama savanna one afternoon, I saw a small tiger crossing the path with a stealthy gait. Ben was not far behind me with a single-barrel gun, and, on my beckoning to him, he ran up with it. I then advanced in a crouching position towards the tiger, but before I got well within range it saw me and ran. Standing up quickly, I took a short aim and fired, the charge being as usual BB-shot. It was then within ten yards of a large grove of trees, but on receiving a peppering with shot, sprang round, heading away from the bush, and taking a short circuit came back to the same spot, where with one or two bounds it plunged into the thicket. The way it sprang round to the side I aimed at, and bounced upwards, clearly proved that it was hard hit. At the village there were some twenty lean dogs, which I got the Indians to bring into the grove next morning to try and find the animal, in case it had remained there in a wounded state. They were not a bit of use and would not try to hunt, but trotted slowly about amongst the trees. We therefore returned to the village, leaving most of them behind. Some were weak, imbecile, old dogs, which soon lost themselves in the bush, where they remained howling for succour all the afternoon.

After the slight adventure with the tiger, I went on to the village, and whilst sitting down enjoying the cool evening air, I saw a large rattlesnake crossing the clean intervening space between the grass and the thatched wall of one of the houses. Simultaneously an Indian saw it, and seizing a stick each, we ran to despatch it before it could enter the house, which was crowded with women and children. One half of its body had passed under the wall when our sticks came down together upon the other half, completely smashing it in two places, and depriving it of all power of advancing. The Indian then drew it out by the tail and battered its head.

One afternoon some Macusis arrived who belonged to Peropoo village, having with them an Ackawoise Indian, who said that he came from the Potaro river, and was fleeing from the Kanaima. It was evident that he had committed an evil deed in his own territory, and was fleeing from punishment; and no wonder, when that punishment would be death. He wore his hair long and parted down the middle in the usual Ackawoise way, a custom which contrasted strongly with the style in which the Macusi, Wapisiana, and Atorais wear theirs. The men of those tribes keep their hair cut straight behind, in a line with the lobes of the ears, and straight across the middle of the forehead to each temple in front, letting it hang in a fringe. The women also have the fringe in front, but allow the hair to grow long behind.

On the morning of April 4th, I left Surama, my party consisting of thirteen of my own men and three Macusi Indians. We were accompanied by the old

head man, who came of his own accord, bringing a little boy to carry his hammock. My object was to cross over to the Ireng river, then take a northerly course past the head of the Siparuni, and make my way on to the Potaro. Our course, at first, lay through forest in a westerly direction over a rough country. We passed through Peropoo village, and there obtained an Indian as guide, after which we passed three villages, and stopped at a fourth for the night. The people of the place were away, and in their stead were mosquitoes and an old cock. The old bird seemed quite delighted with our company, having no doubt been very lonely by himself. From this we proceeded up the valley of the Taramu river, following a path near it until it became a mere mountain stream flowing down a steep incline. Late in the afternoon we had reached a spot at a height of 1200 feet above the sea, at the source of a small stream containing a pool of greenish semi-stagnant water, at which we were obliged to camp. On the way we passed through a pretty little wood-locked savanna, on the edge of which we rested for a time, and there under some low bush saw the nest of a powie (*Crax alector*), which contained two white eggs. After departing from this camp, we soon left the forest behind and entered upon savanna mountains, passing through Itabay village, and arriving at Quonga.

On approaching the latter village, we saw some Indians fleeing away, while those that remained when we arrived appeared alarmed and ill at ease. Not a man was visible from the time of our arrival in the forenoon till dusk in the evening, when, as I was in

one of the houses where we had taken up our quarters, some twenty men entered and squatted round its sides. One of the lot, who appeared excited, came and spoke to me in English, saying that since my last visit he had come up from the Demerara river, where he had been working for some years, bringing with him a black man, named Harper, who wished to purchase hammocks; that one day Harper went shooting and accidentally shot himself in two places, one being in the stomach and the other in the back of the neck, from the effects of which he died. This Indian was so full of this story with all its particulars, and so anxious that I should believe him, that it seemed to me as if he and some others had a hand in the death of the poor negro.

The steep mountain climb, from the valley of Uorora to Quonga, told on my men, who were all heavily laden, and nearly finished off the old head man of Surama, who fell once or twice, and bruised his legs on the rocks. He and two of our Indian carriers turned back from that place, and were replaced by two Quonga Indians. From Quonga we went on to a village called Cara-cara, where my men rested whilst I spent one day in going to the Ireng and back, Although most of the party reached Cara-cara at 4 P.M., yet some did not come in till dusk, and two, having broken down on the way, did not arrive until the following morning.

The Cara-cara people told us that a few days before our arrival they discovered three strange Indians lurking about their village at night, and knowing they had come to kill some of their people they had hunted

about and started them from their hiding place in some bush. Giving chase, they came up with one fording the river, and as he landed on the opposite side sent a shower of arrows after him, one of which pierced his side, and he fell. Springing quickly up, he broke off the shaft of the arrow and made off.

Before reaching the village we met a band of Indians, twenty in number, all fully armed and painted, going south, who said they were hunting; but I imagine the object of their journey had something to do with the above-mentioned Indian Kanaimas, whose place of residence they had probably discovered.

On my way from Cara-cara to the Ireng, amidst splendid scenery, we passed one of a number of lofty mountains of about 3000 feet in height, named Waetipu, near the foot of which the guide pointed out a row of small white quartz rocks placed close together, and occupying a length of some fifty yards. These, he said, had been deposited there ages ago by a party of Carib Indians, who came from the westward to kill a gigantic "Kikushie" (tiger), which lived in a cave near by. This tiger was an exceedingly fierce black one, but the brave band surrounded its lair, and transfixed it with poisoned arrows as it tried to escape. To commemorate the event they painted some figures in red on the rocks of the cave which were pointed out to me, and each man then picked up a stone, and, standing in a line with his comrades, placed it on the ground. If this be correct, there must have been about 300 warriors engaged in this undertaking. They then went to a mountain near

by where a dangerous eagle lived, which they also attacked and slew. After accomplishing these doughty deeds the band went back towards the setting sun, and were never seen again.

We came upon the Ireng river at the Caroni falls, where its black water was precipitated over a number of steps of quartz porphyry into a large inky pool below. This pool was teeming with fish, according to the statement of the guide, and judging from the immense number of fish bones at an Indian camping place near by, I should say that the statement was correct. Amongst these bones I saw the skulls of five large Lowlow. On the edges of the river there grew some low trees bearing a small hard fruit, which evidently was a species of Pimenta (*Eugenia*). In taste it was hot and bad flavoured, yet the Indians ate it readily.

After a day's rest at Cara-cara I sent back Peterson and five men to the boats on the Burro-burro, with orders for them to descend to the mouth of the Siparuni river, and wait there for nine days in case we could not get paths leading northward to the Potaro, and should be forced to descend the Siparuni; then at the expiration of that time to go down the Essequebo to the Potaro river and await our arrival at Tumatamari fall. With seven of my men and three Macusi I pushed on northward, and, entering the forest-covered country, ascended a steep hill until we gained an altitude of 2000 feet, on the top of which the Cara-cara Indians had their plantations. In a hut we took shelter for a short time from the inclemency of the weather, but as the rain did not cease we were compelled to go on and stand a

soaking. Near the hut were some curious rude figures of men cut on some large blocks of quartz porphyry. Descending the back of the mountain, we arrived at a village in the valley beyond, and as we entered the door of one house a strapping Indian woman and a little girl bolted through the palm-thatched back wall, making in their fright temporary doors for themselves. One woman remained, the sole inhabitant of the place. I sat down on a log to rest outside the house, and on looking down at my socks, found, to my dismay, that they were covered with jiggers seeking an entrance through them. As they were soaking wet the insects seemed to have their ardour somewhat damped, and I was able to pick and rub off most of them. On we went again, and had it been a dry day I should have shaken off the dust as well as the jiggers from my feet on leaving the place. Late in the evening we came to a new village, the owners of which were not at home, where we put up for the night. A number of that large and poisonous ant, the Monoorie, were about, so that when night came on we took to our hammocks, and dreading the stings of those insects dared not get out of them till daylight next morning.

In the forenoon, on the following day, we came out of the forest upon a magnificent and extensive savanna valley, the views from which in all directions were truly grand and charming. To the north-west was a high, bare, table-topped mountain, called Tawailing, rising gradually up to a height of about 4000 feet, the last 500 feet or so of which was quite perpendicular. On the west was the valley of the Ireng river, formed

of grass-land, with savanna mountains to the westward. To the south and east the country was wooded and rough, and to the north a great wooded escarpment, called Mowarieteur, stretched away to the eastward. In a deep gorge between Tawailing and this escarpment ran a large river, called Echilebar, which is a tributary of the Ireng.

In passing a low tree on the side of the path a brilliant red and blue macaw (*Macrocercus macao*) uttered a shriek over my head, and on looking up it closed its eyes, and nodded its head in a most idiotic manner. I at once saw that it was a tame bird, and knew that a village must be close at hand. Rising a slight eminence some Indian houses lay before us, and soon after we reached them.

We reached the edge of the Echilebar river late in the afternoon, at an elevation of 1004 feet above the sea. Pressing on up the steep, wooded, sandstone escarpment of Mowarieteur, on the east side of the gorge, we climbed 1085 feet in the last hour of that day's journey, and reached a village on top which, being exposed to the full force of the north-east wind, was cold and dreary. Being heated by my climb, I soon became thoroughly chilled by the searching wind, and had to walk about to warm myself.

Next day we did not go far before we came to the large village of Owenteik, on reaching which the Macusis with me said that they wished to return to their homes. One of these was the son of the old chief of Surama, who had avowed his determination to go through to the Potaro with us. He now complained that the mountain climbing was too much for him and

he could go no farther. The Indians of Owenteik appeared to be a morose lot, and took very little notice of us, all remaining in their houses. Wishing to get three Indians to replace those that left me, I sent the interpreter from house to house, to ask for men, but the answer from all sides was, "Wait till the head man comes home in a day or two, and then you will get men." As we were powerless to move without guides, and not being able to waste time on account of our small stock of provisions, I took the interpreter with me, and entering the nearest house, approached the strongest-looking man in it, and then told the interpreter to inform him that I wanted him to carry a load and guide me onwards towards the Potaro. The effect of this personal appeal was magical. The man looked pleased, and said he would come as far as the next village, where I could obtain men to go on with me. I tried two other men in a similar way in other houses, who also agreed to go at once.

After this I saw a party of Indians approaching the village, but they turned off along the path which led past it. Getting abreast of the place they stopped, one man, in a loud and angry voice, making a long harangue, beating his breast wildly all the time. He seemed to be in a terrible rage with one or more of the Owenteik people, and was evidently denouncing them. After performing for a quarter of an hour, he and his departed on their way and were soon lost to view.

From the heights of Owenteik we looked north over an enormous plain bounded by grass-covered mountains.

After two hours' delay we started on our way, taking a northerly direction down to the Echilebar, which we forded in shallows at the head of a large fall, and continued over the vast plain, passing along its western side not far from some hills of soft friable sandstone, where landslips disclosed great faces of white, red, and pink argillaceous beds.

Early in the afternoon we passed the main source of the Siparuni river running north-east through the plain, and at 4 P.M. turned off to the westward amongst the hills. As we tramped along we saw an Indian coming along the path about half a mile before us. Suddenly he paused for an instant, and then made off like a deer towards the hills on the left. It was evident that he saw our party and had received a scare from our numbers. The Indians with us said he must be a Kanaima, and on reaching the spot from which he made off, went in search of him, but without success. Resuming our march we soon saw him coming towards us, and falling in on our rear he joined our party. He guided us to his village, called Encaco—a dull forlorn-looking place, with the wind whistling around, and light mist-clouds passing across it.

Going next morning in a north-westerly direction from Encaco, across savanna hills and bush alternately, we ascended a wooded sandstone mountain to a terrace, some 300 feet up, on which was situated a large village belonging to Indians of the Partamona tribe. Our Owenteik Macusis knew nothing of the onward path to the Potaro, and, having accomplished their mission, left us to return to their homes. After a few hours' delay the head man of the place arrived, accompanied

by fourteen men and boys, all armed with bows and arrows, the last man of the band carrying a large deer on his shoulders, which they had killed. He sent to another village near by for men, a party of whom soon arrived, headed by their chief, an old man with one eye. They said they would take us on to the Potaro, but would not start till the following day.

In the afternoon the youths and boys of the place played a game over which they made a good deal of noise and seemingly enjoyed. They formed a line across one of the wide approaches to the village, while one of the strongest of the number made an effort to break through, by rushing against it at his greatest speed. Any man who approached the village had likewise to break through before he could enter the place.

Message after message had to be sent on the following morning to our new guides before they eventually came, and that was not until they had finished all the paiworie in their place. Eight came instead of four, and the one-eyed head man would not carry a load, as it was necessary to devote all his attention to a gun he carried, the hammer of which would not catch at either half or full cock. He fired it by hauling back the hammer with his thumb and keeping it in that position till he got aim, when he would lift his thumb, setting free the hammer, and off it went, seldom missing the object aimed at.

From the village we continued in a northerly direction along the sandstone terrace, which, beyond the end of the wooded mountain to the west, widened out

westward into an extensive open table-land. Upon this was but little soil, the coarse white sandstone forming an almost even pavement, on which grew shrubs, mosses, and some curious flowering plants; of which a ground orchid with Cattleya-like blossoms was the most beautiful. Traversing this along the edge of the terrace we entered the forest again, and crossed a small dry circular pond having its bottom all grass-covered. It was situated in a small clearing some fifty yards in diameter, and had evidently been artificially made. In the centre of this the guide paused, and directed my attention to numbers of small circular pits, that had been dug all over the bottom of the pond. These averaged from three to six feet in diameter, and from six to eight feet in depth. Leaning against a tree on one side was a bundle of sticks with slightly curved ends. Selecting one, the guide stooped down, and stirring up a large mass of gelatinous froth in the bottom of a pit, dislodged a small flesh-coloured frog, which he tapped on the head. In the grass around the pits' mouths were also patches of this froth containing little white frogs' eggs, about half the size of peas. These frogs are considered great delicacies by the Indians, and the pits are dug to entrap them when they come to the spot to deposit their eggs.

We passed through one village and came to a second, where we had to stop for the night. The people of both villages had collected here to have a dance and drink, and one Indian youth led off the affair, strutting about in a large tiger skin, with bundles of bird skins attached to it for tassels. The ends of his toes were turned up off the ground to keep them from touching

anything, for being crammed full of jiggers, contact with a foreign substance would be painful. I was offered a calabash of a pink drink made from the sweet potato (*Batatas edulis*), called casserie; being thirsty, and at the same time not thinking that any chewed-up cassava had been put in it, I drank it, finding it cool and of a pleasantly sour taste. I afterwards witnessed the manufacture of the same drink, and to my horror found that a certain amount of chewed-up cassava was one of its ingredients.

After leaving the village the path led up a steep mountain side to a level of 2800 feet, and then traversed an almost level country in a northerly direction.

As we went along the guide shot two trumpet-birds and a maam, which were very acceptable, my food from leaving Surama having consisted of salt codfish and rice for every meal.

The dogs ran down and killed a Kibihie or Coati (*Nasua solitaria*), which had a gray muzzle and ringed tail, covered with short hair. Soon after that we met a whole drove of a larger kind of kibihies (*Nasua socialis*), with bushy tails and no gray hairs about their muzzles, which were rooting amongst the dead leaves for worms and seeds. One fellow was passing close by when it saw me, and being seized with a panic, ran swiftly up a tree stem to a height of some fifteen feet, and then as suddenly jumped down, coming heavily on the ground. It did not seem much hurt, but made off at a good pace.

In the afternoon we came to the edge of the mountain facing north, its crest being just 3000 feet above the sea level. Descending on a long and narrow spur we came to a river in the valley below, called the

Emoy, and there camped, after a most fatiguing walk of ten hours' duration.

In many places on the path we had to step over arrangements of little sharpened sticks, placed loosely together in a variety of ways. These, the guide said, were put by the Indians using this path for the purpose of keeping the pumas and jaguars from traversing it. These sticks were not meant to injure the animals, in fact they were too loosely stuck up for that, but were merely intended by their artificial appearance to scare off the tigers. They seemed to be of little service, for in many places small trees on the edge of the pathway had been bitten and scratched, and the soil scraped up by jaguars.

From where we struck the Emoy river one day's walk brought us to a rolling savanna, in the centre of which, near a grove of Parapee palms (*Guilielma speciosa*) stood a village, called Taiepong.

In coming along I saw two of the Indians walking a little in advance suddenly take to their heels and flee precipitately, waving their arms wildly about. Whilst wondering what on earth possessed them to act in that insane manner, I passed on to the place from which they broke into a run, and then heard a buzzing sound round my head, followed by sting after sting on face and neck from a swarm of wasps. Maddened by pain, I likewise fled, and did not stop until I had outrun the last of my tormentors. My ruffled feelings did not become soothed until the last twinge of pain had died out of my swollen wounds, about an hour afterwards.

Taiepong savanna is covered with a remarkably

coarse, sparse grass; its soil is poor in the extreme, the underlying rocks of coarse sandstone and conglomerate showing at the surface every here and there. Patches of coarse fern grew in many places, together with pretty ground orchids of three kinds; two with purple flowers, and the third with a white flower having a yellow centre. It is surrounded by tree-clothed mountains, and away to the west some forty miles off the faint blue outlines of high table-topped mountains can be seen, one of which, called Salieng, has a sharp peak at its northern end.

When we arrived at the village the only inhabitants to be seen were two or three women; but after a time more individuals came dropping in, with their hammocks over their shoulders, looking as unconcerned as possible, though a short time before they had been so alarmed as to flee at our approach.

The village was a good-sized one, but most of the people had gone away to the Potaro to attend a drinking bout. Our first inquiries were whether they had woodskins on the Potaro, which was only half a day's walk off to the northward, and the reply we received, that they had none, was very disappointing.

The Indians advised me to remain a few days at this place, whilst they sent on to the village to the northwest, called Enapowou, on the borders of the Potaro, to see whether they could get woodskins there, telling us that it would be of no use for us to go ourselves whilst the people were drinking As there appeared to be a doubt whether we could get canoes, I consulted with my men on the advisability of making rafts of light wood, and so floating down on them with the stream.

We all agreed to adopt this plan if we could not get woodskins, feeling that it was better to go down stream on pumpwood rafts, than to retrace our steps to the Rupununi.

Game in this part was scarce, and as all our salt fish had been consumed, we had to subsist on rice and cassava, and any little dried meat that could be purchased from the Indians. Some dry, tasteless, mildewed tapir meat, which we procured, was looked upon as a treat, and eaten with gusto.

Taiepong village was composed of seven large and four small houses, together with a long bark-sided building, twenty-eight yards in length. This building had one door, outside of which were two high posts with large pieces of flattened wood fastened to them, after the manner of sign-posts. On these boards were burnt in, some curious characters, like letters, resembling in form the tattoo marks which ornament the faces of Ackawoise Indians. One Indian told my interpreter that the signs on one board meant "Come," and those on the other "Go"; while another said that they were put up the previous year "to bring the sun," the rainy season having lasted too long. They said this building is an imitation of a church, and that an Indian acts as preacher in it, his gospel being that all Indians who come and listen to him will in time turn white and have clothes, and the village will become a large and flourishing place like Georgetown, the capital of British Guiana. In this would-be church there were no seats or even logs to sit upon, but a huge paiworie coriara (trough) clearly indicated that it is chiefly used as a dancing house in times of drinking bouts.

On the first day of our stay at the village a most eccentric individual arrived from a neighbouring place, accompanied by his wife, who was at least ten years older than her husband. They seemed very fond of each other, and she watched his every movement with pride and delight. Presenting me with three cakes of cassava, he commenced a long harangue, which he flattered himself was English, but which was really no language under the sun. Not a word of it could anyone except his wife understand. He remained a whole day there, never uttering a word except in the strange tongue he had himself invented, even when addressing his own tribe.

During our stay at Taiepong the nights and forenoons were rainy, but the afternoons were fine, when I made excursions over the savanna in the neighbourhood.

The natives grew quantities of fine pineapples (*Ananassa sativa*), from which they manufactured an intoxicating drink, by grating the fruit on a wooden sieve, and allowing the juice to remain until fermentation set in. They also prepared a black substance, by burning an aquatic plant, called houyah, then mixing the ash with burnt cassava bread and drying it in shapes in the sun. This they put in their paiworie, making it the colour of ink, and giving it a most revolting appearance.

The man sent on about woodskins returned in due course with the glad tidings that we could obtain as many canoes as necessary, and brought another man with him, who spoke English, and offered his services as guide.

The old one-eyed guide, who had brought us to the place, would go no farther, being afraid of the vengeance of a man of the village to which we were going, whose brother, wife, and two children he had murdered in cold blood a few years before. He one day very coolly took the lock off a gun he found hanging in one of the houses, got my servant to take the necessary parts from it, and patch up the defective lock of his gun. When this was done, the catches for half and full cock worked splendidly, but not fitting exactly, the hammer, when at full cock, used to lie almost over on its back.

After a forced stay of three days at the village we went on through the miserably wet forest, in pouring rain, to a small place on the edge of the Potaro river, in a direction west-north-west from Taiepong. From thence we went up river to a creek, called Enapowou, where a vast number of Indians were still engaged in drinking black paiworie. There we obtained four small canoes and one corial, after a day's delay, and with four Indians to bring back the canoes, started on our journey down the black and swollen waters of the Potaro.

When on the point of leaving, a woman stepped forward to an old Indian in one of our canoes and held up her head. He tapped her forehead with his fingers, muttered a few words, and then blew on her temple. This was done to charm away a pain in the head, the old fellow being a peaiman, and capable of effecting such cures. On our arrival at villages I have sometimes seen a woman carry her infant round to one after another of the Indians of my party, each man

as she passed stooping down and blowing gently on the face of the child.

Descending the river rapidly all day we came within sound of the roar of a large fall, and there camped under some old banaboos. Our guide said that this fall was very high—"as high as the trees," and we should have to walk past it and down the mountain beyond. We went but a few hundred yards in our canoes next day (April 24th), when we came to the end of a path leading across a small savanna past the fall, the roar of which we could plainly hear. The surface of the savanna was composed of bare patches of sandstone and conglomerate, the pebbles from the disintegration of which formed little patches of gravel here and there. Shrubs, mosses, and pretty flowering plants grew over it in abundance.

When we came to the northern end of the savanna I observed that heavy masses of vapour were drifting before the north-east wind, making the trees, grass, and shrubs on our right dripping wet. This came from the great fall to which we were in close proximity, but which was hidden from view by a grove of trees. Making a detour to the right through this grove we came out on the flat rocks at the head of the great fall, and walking to the edge of the precipice, down which the water was precipitated, I gazed with wonder and delight at the singular and magnificent sight that lay before me. Not being prepared for anything so grand and startling I could not at first believe my eyes, but felt that it was all a dream.

There, however, was the dark, silent flow of water

down which we had travelled, passing slowly but surely to the brink of a great precipice, and breaking into ripples as it approached its doom. Then curving over the edge in a smooth mass of a brownish tinge, changing into snow-white fleecy foam, it was precipitated downwards into a black seething cauldron hundreds of feet below. Of how many hundreds I could not with certainty make out; but, judging from the appearance of the river below the basin, I thought it must be near upon 900 feet. I was prepared to meet with great falls on our way down, knowing from our altitude by aneroid that we were some 1200 feet above the sea on the Upper Potaro, and that the mouth of the river was at a level of only sixty-five feet, but nothing of so grand and extraordinary a nature as this ever entered my mind for a moment. Feelings of delight for a time overcame me, and I astonished one of my men by grasping his arm and pointing out to him the glories of the scene. In fact, both myself and my usually stolid men were all in a state of great excitement.

Standing on the edge of the water near the brink I looked down a long and comparatively straight valley, bounded by wooded bluffs and cliffs, with precipices of gray sandstone rock in places. In the bottom of this valley curves of the river, in its onward course from the foot of the fall, could be seen, the distant ones resembling little streaks of silver. Beyond the mouth of the valley lay a great wooded plain, stretching away to the horizon northward.

The Potaro was swollen at the time by the late rains, and where it poured over the curved edge of the fall it

was over a hundred yards in width, containing a vast volume of water, which, as it reached the basin below, sent up great creamy spurts of foam with a steady thundering roar. A dense mass of mist rose from the western side of the foot of the fall, which, whirling upwards above the top, was caught by the wind, and blown like a cloud-scud over the savanna, while a smaller one rose from the eastern edge. The precipices on either side curving round from the fall to the sides of the valley were of gray and reddish colours, with patches of shrubs and mosses clinging here and there to their faces. On the western side a mass of talus, composed of enormous rocks, sloped to the basin's edge, almost meeting with a smaller similar mass in front of the basin, coming from the eastern side. The outlet, therefore, from the basin appeared to be constricted, but vast quantities of water find their way in channels beneath these confused heaps of rock.

It was with difficulty that I could stand near the precipice edge, a little to one side of the fall, and gaze down past the rush of water to the foot, the downward movement of the white mass producing a sensation of giddiness. One could see the dim outlines of the entrance to a great cave behind the water, in and out of which through mist and spray a number of large black swallows wheeled and circled.

After spending an hour and a half at the head of the Kaieteur—the Indian name of this fall—I was obliged to tear myself away, the stern necessities of life forcing me to depart. After the old dried tapir flesh we procured at Taiepong, the only article of

meat diet of which I partook was a small duraquara, a bird not as large as a partridge. We had sufficient hard cassava bread to eat, and kept nibbling little bits when hungry, without having any regular meals; but nature revolted at such poor treatment, and craved for fish or flesh food of any sort. It was owing to this scarcity of food for my men and myself that I was compelled to push on.

Resuming our line of march on the little savanna, we entered the forest to the north, and descending the steep mountain side arrived at the edge of the lower Potaro, at the foot of the last cataract which intervenes between that spot and the basin of the great fall. There the river was flowing on steadily and peacefully towards the sea, as if its level course had never been broken. By aneroid the difference of level between this and the top of the fall was a thousand feet. Allowing a hundred feet for the difference of level between this and the basin, I roughly estimated the height of the fall at nine hundred feet.

The path ended there, but a track along the same bank led on to a village not far off, to which our Indian guides and four of my men proceeded, in order to procure woodskins to carry us down river. The reason they gave why we could not all accompany them was, that, the river being swollen, our things could not be transported over some branch creeks.

We spent the night at the landing, and next day went down to the Partamona village, at which the woodskins had been procured. On the way down, from two reaches of the river, I obtained glimpses of the upper half of the great fall, but the early morning

fog clinging to the surrounding mountains partially obscured it.

At the village I found some forty Indians assembled, belonging to this and other villages, all on the point of starting for the Demerara. It was, therefore, with great difficulty that I was able to procure just enough provisions to last my party for our journey down to Tumatamari. Thus I was prevented from visiting the foot of the fall. I knew, however, that I could easily return on a future occasion, provided with instruments for measuring the full height of the fall, and therefore made light of my disappointment. We fortunately got some fowls, which were soon cooked and shared amongst all hands. My servant untied his cooking pack on the occasion for the first time for many days, and found my tinned-iron plates, knives and forks, all stuck together in a mass of rust.

Amongst the Partamonas at the village were some men who wore curious long thin beards, arranged in a line on their chins like the teeth of a comb. This appeared strange, for Indians, as a rule, pluck out any hairs that grow on their faces.

With great difficulty, I persuaded some men to sell me two woodskins, in which we started down river, accompanied by two guides in a third canoe. After proceeding a short distance down stream, we came to a cataract, called Waratu, where we had to transport our canoes over a short portage, and at noon came to another set of large cataracts, called Amatu, situated across the river at the entrance to the large valley. The canoes had again to be portaged for a considerable distance, and were then on the river where it wound

about along the great undulating forest-covered plain, on its way to join the Essequebo. Passing down the great valley from the village to Armatu, some magnificent views of the great sandstone precipices on the valleys' sides were obtained, and many beautiful cascades, and streams swollen by the recent rains, fell over their sides. On the following day, we had to carry the canoes overland for a quarter of a mile, so as to evade a set of cataracts, called Pacutout, and again at another set we had to carry everything over a portage of over a mile in length.

On our third day from the Partamona village we passed the mouth of a large river on the north, called the Curiebrong, and by 10 A.M. came in sight of Tumatamari cataract, which we recognized with most ecstatic feelings, knowing that our toilsome journey was nearly completed, and that an ample supply of food was near at hand. Landing at its top, we traversed the portage path on the south bank to its foot, and there had the pleasure of seeing our boats made fast at a fine white sand beach, on the north shore, upon which was a snug camp containing their crews. Shouting lustily and firing a gun, we attracted the attention of the latter, who, coming over, soon ferried us across to camp, where we congratulated each other on the successful completion of the journeys assigned to each party. Being travel-stained and weather-beaten, we spent a day on the sand-beach to rest, and leaving Tumatamari on April 30th, arrived at the Penal Settlement on the morning of May the 3rd.

CHAPTER IX.

KAIETEUR FALL.

Difficulties of Ascent of Potaro River — Walk from Landing to Foot of Kaieteur — Take Measurements of Height of Fall — Legend of Origin of Name of the Fall — Swallows — Views — Visit Basin at Foot of Kaieteur — Difficulties of Approach — Descend Potaro — Arrive at Georgetown — Table of Measurements.

WHEN I arrived in Georgetown from my journey down the Potaro river, and described the magnitude and beauty of the great fall I had seen, the inhabitants of that city were filled with surprise, and many with doubt. They rightly considered it strange that such a gigantic natural wonder—one of the grandest falls in the world—existed in their colony and was unknown to them. They argued, that Indians from the Potaro had frequently worked on wood-cutting grants on the Demerara, and had never as much as hinted that such a thing existed. The Dutch, who owned the colony for so many years, had a military post at the mouth of the Potaro, and they concluded naturally enough that the postholders had made excursions up that river; and if such a fall existed, would have fallen in with and recorded its existence.

It was, therefore, the universal wish that something definite should be ascertained of its true measurements.

His Excellency the Governor, Sir John Scott, commanded me to make preparations for a journey

back to the Potaro, in order to make a thorough examination of this fall and ascertain its true altitude and magnitude.

On the 28th of June, 1870, I left Georgetown for the Penal Settlement, in the contract steamer, accompanied by Sir George Young, Mr. Mitchell, and Mr. King; the two former gentlemen being at the time on an official visit to the colony. It was well on in the rainy season at the time, and when we commenced our boat portion of the journey we found the Essequebo river in flood, its waters in some places above the first set of cataracts, having risen above its banks and spread far inland through the forest. In these places we had no ground to camp or cook meals upon, and had to sleep in our boats. The current ran strong, so that our progress was slow, and it took us eight and a half days to reach the cataract of Tumatamari. There we formed a camp at the end of the portage, on the south side, the sand-beach being all under water; and leaving our large boat, went on with a small bateau and two small corials.

These we got up the cataract on the south side, over the rocks, the operation being facilitated by the height of the water of the Essequebo, which dammed back the water of the Potaro and raised it at the foot of the cataract, thereby lessening the height of that impediment.

When we arrived at the foot of the Auritout set of cataracts, we portaged the stores in two places, for a distance of half a mile in the first instance, and 594 yards in the second; but hauled the boats up in the water. To pass Pacutout cataracts we had to take

our boats up a hill to the level of fifty feet above the river, and along the portage on rollers, which we cut and placed there for a distance of 1078 yards. This fatiguing operation, including the carriage of the stores, called into requisition the whole strength of the party, consisting of thirteen men and ourselves, and took us nine hours in its performance.

It took us the whole of one afternoon to pass the Amutu cataracts by the portage, 440 yards in length. Leaving its head early, on the morning of our fourth day after leaving Tumatamari, we entered the end of the great Kaieteur valley, and for the remainder of our water journey had high mountains on either hand.

With the exception of the short portage for stores at Waratu cataract, we had smooth water, and not a very strong current to contend with, and passed the Partamona village early in the forenoon of the day on which we entered the valley, arriving at the landing at the foot of Tukuie cataract, three miles below Kaieteur fall, at 2.30 P.M. on the same day.

I have given the above outline of the voyage up the Potaro to show the difficulties we encountered in passing its cataracts. These cataracts, no doubt, had hitherto proved effectual bars to the ascent of this river by colonists, and had jealously guarded the Great Fall from the sight of all but the natives themselves.

The first fine view obtained is on approaching Armatu, where along a vista of river one can see that high foaming cataract, backed by dark gloomy-looking mountains, the uniformity of which is broken by deep gorges and gaps. Upon entering the great valley the rain began to fall heavily, producing some beautiful

cascades down the sides of some of the great precipices of sandstone, and continued until we reached Waratu, when, as if by magic, the rain clouds broke away, and the sun came out brightly, melting the mists and fogs clinging to the mountain sides. Then we obtained our first view of the upper portion of the Kaieteur, far off, at the head of the valley, pouring its foaming water over the precipice edge into the depths below.

At 8 A.M. on the morning following our arrival at the landing, we started off to visit the foot of the great fall, accompanied by a party of Indians, two of whom we had engaged at the village as guides. We followed the well-beaten path which leads to the head of the fall for a few hundred yards, and then struck off through the forest to the river, coming out on its western side at Orinedouk cataract. There we followed the river's edge for a short distance, sometimes jumping from rock to rock, or wading in shallows along its bank, until large blocks of sandstone on its sides prevented our further advance. Then we took to the forest, clambering sometimes up and down over confused heaps of enormous rock masses, at others going through natural subways; having, in every instance, to cut through the tangled mass of vines, bush-ropes, shrubs, and undergrowth that pervaded the whole place. The footing was dangerous and difficult, and at times we came to a wall of rock which prevented any farther advance, when a new line of route had to be sought. In two hours and three-quarters after leaving our camp, we came out again on the river's edge, on a spread of large flat rocks directly facing the fall, at about a quarter of a mile from its foot. Here the

regular forest ended, and all beyond on either side of the river was a confused mass of rocks, coming to the water's edge, and covered with a matting of low plants, shrubs, and mosses. There we halted, as it was absolutely necessary to choose this as the lower barometer station, there being no chance of getting one farther on. Before us thundered the fall, its contact with the water of the basin being a confused scene of fleecy masses of tossing waters, spurting high in the air in front of the downpour, and giving birth to mist clouds which rose continuously upwards, and over the precipice on the right.

Owing to some misunderstanding at starting, our men with the provisions of the party took the path up the mountain, and came out at the head of the fall a short time after we reached its foot. They returned and rejoined us at 5 P.M.

After comparing the Standard and Gay-Lussac barometers together, I attempted to sketch the fall, whilst Sir G. Young and Mr. Mitchell performed the difficult feat of swimming across the river, and visiting the edge of the basin on the eastern side.

On their return, after arranging about the upper barometer station, and a code of signals for simultaneous observations to be taken on the following day, they set off on their return to the landing, taking the standard barometer with them. All but three of our Indians went back with them, not liking to spend the night in such a mysterious place.

Mr. King and I had poles rigged up and lashed together, under a large rock, which formed a sort of cave, where we slung our hammocks for the night. A

little antechamber, with a natural stone seat along one side, formed what my servant called the "kitchen," wherein we spent the evening chatting over the fire. I got my interpreter to question our Indian friends about the meaning of the word Kaieteur, and learned that, rendered into English, it stands for "Old Man Fall." The way in which it acquired this name was from a tragedy enacted on the spot, in connection with the fall, at a time of Indian history, about which there is no certainty of date, and which may be called the traditionary period.

This is the tale as related to me: 'Once upon a time," there was a large village above the fall, situated on the little savanna, amongst the inhabitants of which was an old Indian, who had arrived at that period of human existence, when his life had become a burden to himself and a trouble to his relatives. Amongst other duties, there devolved upon his near relations the tedious one of extracting the jiggers from his toes, which there accumulated day by day. These duties becoming irksome at last, it was arranged that the old man should be assisted on his way to his long home, that spirit land lying two days' journey beyond the setting sun. He was accordingly transferred, with his pegall of worldly goods, from his house to a woodskin on the river above the head of the great fall, and launched forth upon the stream. The silent flood bore him to its brink, where the rushing waters received him in their deadly grasp, bearing his enfeebled body down to its watery grave in the basin below. Not long after, strange to relate, his woodskin appeared in the form of a pointed rock, which to this

day is seen not far from our lower barometer station; while on the sloping mass of talus to the west of the basin, a huge square rock is said to be his petrified pegall or canister. Thus has the fall been named Kaieteur, in memory of the victim of this tragic event.

Becoming sleepy after our day's fatigues, Mr. King and I withdrew from the kitchen and sought our hammocks. Lying in a position facing the fall, I had only to open my eyes, and there was its grim, white, ghostly outlines before me, rendered somewhat indistinct in the deep gloom of night. Unprotected from the keen moisture-laden night wind of this misty place, which swept with sighing sounds through our rocky house, I spent a most uncomfortable night, dozing off and waking up at intervals. Each time I woke my eyes sought the fall, and my ears caught the sound of its ceaseless roar.

On one of these occasions of wakefulness I could see that the darkness was not so intense, but that a subdued light penetrated even into our valley of shadows, and I knew that the moon must have risen above the eastern horizon. By this accession of light I could make out the brink of the fall against the sky; and as I gazed upon it two bright stars rose slowly beyond, looking as if they had emerged from the water itself. Then the first rays of the moon, as it rose above the mountain in the east, shed a silvery light across the fall's crest, which had a most beautiful and charming effect, growing more and more so as the moon rose higher, and lit up a portion of the descending fleecy column.

Just at daybreak I left my hammock and joined the

unclothed Indians, who were crouching over a small fire out on the flat rocks, where they had spent the night, and were shivering with cold. They, at any rate, had had enough of Kaieteur in that one night, and saw nothing romantic or poetical in the situation.

About 8.45 A.M. we observed the arrival of Mr. Mitchell, and some of our men at the top of the western edge of the fall, and exchanged signals with regard to five simultaneous barometrical observations, taken at long intervals.

During the day the sun's rays, shining on the mist, produced a most beautiful rainbow, reaching from the top to the foot of the fall, which, moving slowly outwards with the mist, faded gradually away, while with each accession of mist a new one was formed.

Late in the afternoon we returned to the landing camp, and rejoined Sir G. Young and Mr. Mitchell, who had arrived from the top of the fall. There we spent our last evening together, and had our usual game of whist, with a tin canister in lieu of a card table. On the following morning Sir G. Young and Mr. Mitchell, whose duties compelled them to return to Georgetown, bade Mr. King and myself adieu, and started in the two small corials, manned by six men, accompanied by two Indians, in a woodskin, on their homeward-bound journey. Mr. King and I then ascended the mountain to the head of the fall, and, without hurrying ourselves, arrived at that spot in two hours and three-quarters after leaving the landing.

We formed a camp in the low bush, on the edge of the river, about fifty yards above the edge of the fall, and conducted a series of measurements of the width,

depth, velocity of the river, &c. Finding an old canoe in a creek near by, we made paddles for it, and on my first attempt to measure the width of the river, 250 yards above the fall, I nearly came to grief. I was accompanied by Ben, who paddled in the bow, while I paddled and steered. In taking out the line, we had got half-way across the river, when it caught on rocks at the bottom and checked our way, so that the current swept us rapidly down. Casting off the end of the line, we gave way with all our might, and reached the opposite side just as we were in the grasp of the first broken water, where it commences to gain considerable velocity. Hauling our canoe up along the bank by the branches of trees out of the strong current, we went back and made a second and successful attempt.

On both evenings of our stay at the fall's head we watched with great interest the "swallows' homeward" flight to their roosting places in the great cave behind the fall. Late on each afternoon, these birds were observed coming in large flocks from all quarters of the compass towards our vicinity, and there wheeling round in great circles at different altitudes. Gradually one flock amalgamated with another, till at last near sundown they had gathered into two or three immense bodies, which kept wheeling round in a compact mass, about one hundred yards above us. On asking Mr. King how he would describe their numbers, he replied that he thought the words "myriads of millions" would about do it.

Whilst we were wondering how the birds proposed to get into the cave from their awkwardly chosen

position above it—feeling almost sure that they would have to get gradually into the valley in front, and then fly straight towards their roosts—the question was solved by a portion of the mass swooping down, with extraordinary velocity, to the edge of the fall, seemingly close to the face of the column of water, and then being lost to our view. The rushing sound of their wings in their downward flight was very strange, and produced the feeling that birds of ill-omen were about. Approaching the edge of the precipice, we waited to see the next lot go down, so as to observe how they managed to get behind the water. We had not to wait long before down dropped a cloud of them over the edge, past the face of the fall, for about one hundred feet; then, with the rapidity of lightning, they changed their downward course with a quick turn to one at right angles, and thus shot through the mist on either side into the gloomy cave. Their motions were so rapid that we could hardly make out how they were executed. It appeared to me that, as they swooped down, their wings were but half spread, and their heads downwards, but after passing the edge they turned their bodies in a horizontal position, descending by gravity alone until they arrived at the required level, when they again made use of their wings and flew off at right angles into the cave. Just before dusk the greater portion descended in a continuous stream for a considerable time, but small flocks and single birds kept arriving until it was quite dark. When a single bird shot down, its velocity was so great that it appeared to form a short continuous black line against the sky.

These birds (*Acanthylis collaris*), called Noroquah by the Macusis, belong to the Hirundinidæ. They are of a blackish colour, with a white ring round the neck, widening into a patch under the throat.

The view down the valley was always beautiful; but in the late afternoon, when the sun was sinking behind the mountains on the west, great shadows were cast across it, which had a grand effect. The colouring was then very beautiful, the opening of the valley being lit up by the golden reflection of the sky over the great plain beyond.

I was able, with some degree of pride, to point out to Mr. King the mountains far away to the south and south-east, in the vicinity of Taiepong, over which I had come on my journey from Surama to the upper waters of the Potaro.

On the afternoon of our third day's stay at the head of the fall, we descended the mountain in a terrific downpour of rain to our landing camp; and on the following day I again visited the foot of the fall, accompanied by five men and an Indian, in order to obtain the difference in level between the lower barometer station and the edge of the basin.

On the way thither, the Indian guide, in the act of stepping over some rocks, nearly put his foot on a large labaria, one of the most poisonous snakes of Guiana. It was coiled up in the angle between a flat rock and another in a vertical position. The Indian immediately cut a sapling, and using it like a spear in both hands, aimed at the animal's head; but, missing it, pinned the creature against the angle of the rock. Its head and some six inches of body being at liberty,

with its huge mouth wide open, it drew back, and striking with great force, seized the stick in its mouth, repeating the process four or five times in succession. The Indian coolly kept it pinned down, and, drawing his knife from his waist cord, hacked a piece off the top of the sapling. This he took in his right hand, and, stooping down, without easing the pressure on the snake, quietly knocked it on the head.

When we reached the lower barometer station the chief difficulties of our walk began. Bad as was the part between the landing and the station, it was nothing compared with that on to the basin. The whole distance in a straight line is not more than 350 yards, yet, with climbing over and creeping under enormous boulders, we must have gone almost double that distance. For the first 250 yards we had to cut our way through the shrubs and agaves, interlaced with tangled vines; and frequently came to walls of rock, which stopped our farther progress, forcing us at times to return and seek another route. Passing the agave growth, as we approached the basin, the rocks were covered with a coarse moss, which grew upon the soft, saturated earth, covering their flat portions. On this we all slipped, slid, and tumbled on our onward course, and had a precarious footing when jumping across deep fissures. Long before we got to the basin's edge I was almost covered with mud and moss from head to foot, and just before reaching the basin was thoroughly soaked with moisture produced by the mist and rain coming out from the fall.

On the sides and crannies of the moss-grown rocks

were pretty little plants with scarlet bell-shaped flowers, and orchids with greenish sack-shaped flowers.

Some fifty yards in front of the edge of the basin we entered a region pervaded by fine mist, which, acted upon by the sun's rays, produced small dazzling rainbows in front of our faces, and almost prevented our seeing the way in passing over the deep fissures. Here we felt the influence of the strong breeze produced by the downward rush of water, and our guide, whose naked skin was thereby reduced in temperature, dreading that something supernatural would appear, refused to go any farther, but beat a hasty retreat.

On arriving at the basin's edge, in an hour and a half after leaving the barometer station, the mist and spray completely surrounded us, shutting out the sunlight, while a storm of rain assailed us, driven out by the hurricane produced by the falling water. It was only by getting shelter behind some rocks, and peering through gaps between them, that we could at all look upon the strange scene before us. The turmoil in the basin was wonderful to behold, the surface of the water being lashed into great irregular waves, whose crests were blown into spray as they drove outwards in an irregular semicircle, and dashed against the rocks in front. Where the descending column of water met that in the basin, the contact was rendered indistinct by the mist, but great fleecy masses of foam spurted upwards, many yards in height, in clouds mixed with spray and mist. I fancied that I stood on a rock-bound lee coast, exposed to a raging storm of wind and rain, whilst the sullen roar that assailed my ears added to the awful wildness of the strife of the

elements. I was so carried away by this idea, that, on returning, and getting beyond the mist-covered portion, I was astonished to find that the outside world was calm, and the sun was shining brightly overhead.

In returning, I observed that wherever we passed over deep fissures between the rocks we could see the water which escapes from the western portion of the basin rushing and gurgling beneath. By this means a large volume of the water of the basin finds its way to the river below, and thus the quantity flowing over the lip of the basin in front is reduced considerably in volume.

Between the smooth water below the fall and Tukuie, there is one long and steep cataract and three smaller ones, the latter bearing the names of Serikabaru, Orimedouk, and Osiedouk. At Serikabaru, on the eastern precipice, there is a large cascade, part of which is perpendicular for about two hundred feet; and near it, on the precipice edge, is a large natural stone pillar, with two flat slabs on top, having a very artificial appearance.

Late in the afternoon I got back to our camp at the landing, and on the following day Mr. King and I set out on our return journey. In running down Warratu cataract the bowman, who was a new hand at the work, did not perform his part well, so that when the boat shot over and cleared the dip of the fall, it ran with great violence on some sunken rocks. The bowman was standing up at the time, and on the boat coming to a sudden stop he shot fairly over the bow into the foaming water, but grasping the gunwale saved himself, and was soon on board again. We

were all more or less knocked over by the blow, and remained a short time in our perilous position, the boat grinding heavily on the rocks. The men jumped overboard and kept her from broaching, otherwise she would have rolled over like a barrel. Becoming much lighter when the men got out, she floated off, and was guided at once to a sand-beach near by, gaining it just as she was half full of water, which came in through a huge rent in the thick greenheart plank forming the keel. The repairing of this rent caused a few hours' delay, and was effected with oakum, tallow, canvas, and a board from a salt-fish box. This fortunately was our only mishap during the voyage.

On arriving at the Curiebrong we made a short journey of two days up it, but finding our stores failing we turned about, and continued our homeward journey, reaching the Penal Settlement on the last day of July, and Georgetown on the first of August.

From the results of our investigations the following measurements were obtained:

	Feet.
Total height of Kaieteur fall	822
Height of perpendicular portion of ditto	741
„ head of Kaieteur above the sea	1130
Width of Potaro, 200 yards above the edge of fall	402
„ „ at edge of fall	*369
Greatest depth of Potaro at 200 yards above the edge of the fall	*20·2
	Miles.
Velocity of stream per hour just above the head of the fall ..	4·09

* This measurement applies to the river when in flood.

CHAPTER X.

TO AMAILAH FALL AND THE UPPER ESSEQUEBO.

Leave Georgetown — Ascent of the Curiebrong — Visit Amailah — Cocks of the Rock — Return to Essequebo — Funeral Dance at Apoterie — Adventures with Cayman — King William IV.'s Fall — Manarowah Fall — Make Portage — Shoot a Tapir — Habit of Jaguar — Sand-wasps — Arrive at Village of Taruma Indians — Maopityans — Reach farthest Point attainable — Haimara — Descend Essequebo — Dangerous Cataracts — Meet our Provision Boat — Reach Apoterie — Joined by Mr. Pollard.

FURNISHED with two new boats, built under my own superintendence, I left Georgetown in the revenue cutter "Petrel" on the 3rd of September, 1870, thirty-two days after my return from the Kaieteur, and arrived at the Penal Settlement on the following day. Leaving that place on the 7th, with a crew of eight men to each boat, I proceeded up the Essequebo and reached Tumatamari on the 14th.

On the way up we spent a Sunday at Yucurit island, camping on the sand-beach at the island's point, near the house of a Brazilian Indian who resided there. I was much amused with the good relations existing between three young tame birds at the house; they were fully feathered, but as their wings were clipped they could not fly—not that they seemed to care to do so, as they appeared to enjoy themselves thoroughly, trotting about in company, watching "every pot boil" in the house, and making

little excursions to the edge of the forest, or the water's edge. The leader of the band was a small fall-bird (*Passerina gularis*) with a black and white body and crimson head; the others were a black corn-bird (*Scaphidurus ater*) and a young "Q'est-que-ce-dit" (*Saurophagus sulphuratus*). Wherever the fall-bird went its two companions trotted close behind, side by side, the big corn-bird now and then opening its mouth, in a babyish fashion, to try and induce the little leader to feed it. Whilst I was watching them they made one of their journeys to the river's edge, and began hopping about in some low shrubs overhanging the water, when, in an unlucky moment, the "Q'est-que-ce-dit" lost its hold and fell in, where it struggled round and round in its futile endeavours to get out again. Great was the sorrow and concern of the other two, which chirped and chattered in a most excited state, hopping about above its head on the lowest twigs, as if wishing to try and render it every assistance in their power, and in their excitement nearly falling into the water themselves. Going to the spot I fished the little fellow out with a stick, and no sooner was it on dry land than its companions were round it, evidently greatly relieved in mind at its escape from a watery grave. They all trotted off to the house together, the wet and draggled little bird marching between its two sympathising friends.

The Potaro being low, we were able to haul one of our strong boats up the north side of Tumatamari without much difficulty, and then proceeded up the Curiebrong river, on which, after the usual fighting and buffeting with large cataracts for five and a half

days, we reached the farthest point on the river to which we could go. We were guided by two relays of Indians, the first set of two men, whom we obtained at the first village on the river just below the cataracts, taking us half-way up; and after the loss of their woodskin, in a pool below a village called Partamong, handing us over to some men belonging to that place.

The manner in which they lost their woodskin is worth recounting, and was a rather amusing sight, knowing as I did, that both men were excellent swimmers. They were crossing the river right in front of our boat at the foot of a rapid, where a spit of sand formed a shallow above a deep pool, and in doing so, a tree branch sticking up from the sand beneath over which they passed, tore a hole in the canoe's bottom. Seeing this, both paddled madly for the shore across the strong current, while the craft settled down rapidly under them. When about midway, down it went, and as it was going, each man seized his hammock and paddle in one hand, and the canoe's gunwale in the other, making an attempt to keep it up and swim ashore with the whole lot, by the use of their legs only. As might be supposed, this was too much for human efforts, and they were dragged under water and disappeared. Letting go the woodskin, when they could hold on no longer, both popped up to the surface like corks, and laughing heartily at their mishap, swam ashore to the village. They saved their hammocks and paddles, however, but did not recover the woodskin, though my men assisted them in diving to look for it.

When we reached our farthest point, where we were

stopped by enormous blocks of sandstone filling up the river's bed, we were in the mouth of a valley with sandstone table-lands on either side—the western extension, in fact, of the Potaro table-land. Here we left the boat and followed a path up the mountain for a considerable distance; then went along its side to a small stream, and then finally straight up the mountain at a steep angle to the top. From this we had a grand bird's-eye view of the great undulating forest-covered plain, which stretches away northward as far as the eye can reach. Resuming our walk along the level table-land we came out at the head of the Amailah fall, an examination of which was partly the object of this journey up the Curiebrong. I had been told by the Indians that it was a perpendicular fall as high as the Kaieteur, and was therefore much disappointed at finding that it was nothing of the sort. The water was very low at the time, so that its size was inconsiderable, and even when the river is at its highest point, it can only be 110 feet wide. It is true that it commences to fall from a level of equal altitude to, or slightly greater, than that of the Kaieteur, but then it only descends perpendicularly for the first 144 feet, and then rushes down a long inclined plain, amongst immense blocks of sandstone and conglomerate, for a couple of miles to the level of the river below. Forming a camp near the head of the fall, I descended the valley's side to its foot. Underneath is a small cave into which I went, being first warned by the Indians of the risk I ran of being destroyed by a remarkably large eagle, that had its perpetual dwelling there.

A lot of the Kaieteur swallows visited the place, and I succeeded in shooting one on the wing, which the bird-stuffer skinned and preserved for me. On the second day of our stay, I again visited the foot early in the morning, and saw a flock of the same swallows in their roosting place, clinging in a cluster to the rough pebbly surface of the coarse sandstone beds. Their position appeared to be a most trying and uncomfortable one, and the wonder is, how the birds can manage to sleep and cling there at the same time. Their feet are furnished with strong claws, and their legs are short and stout. Their tail feathers are also strong, having hard pointed tips to each shaft, which they spread with the points resting on inequalities of the rocks' surface, thereby helping to support the weight of the body. The members of this flock were not early risers, for at nine o'clock in the morning they were still roosting, until a shot from the bird-stuffer's gun brought three to the ground and put the rest to flight.

"Cocks of the Rock" (*Rupicola Cayanna*) were numerous in the surrounding thickets, where their sharp disagreeable cry was frequently heard. They are so restless, jumping and flying from bough to bough and tree to tree, that Paulie, who was trying to shoot them, started five, but only succeeded in obtaining one specimen. He found a dancing place of these birds in a thicket, the ground being beaten down quite smooth by their feet; and on visiting it early in the morning with Ben, the two together succeeded in shooting two cocks and a hen bird. They told me that there were numbers around the dancing place,

and that the two cocks they shot were strutting about with their feathers distended, showing themselves off before the rest.

Some Indian boys, who accompanied our guides, tapped a few indiarubber trees, which grew near the fall, and with the milky juice that exuded therefrom, made little balls of rubber.

After a sojourn of two days at the fall, we returned down the mountain to our boats, passing on the way a large white sandstone rock ornamented with figures in red paint. We then commenced our descent of the river, stopping the first night at a village called Tamari. There was a fine little Indian boy there, about four years of age, whose feet and toes were in a shocking state with jiggers, owing to his parents having neglected them. I got the interpreter to ask them why they did not do something for the poor little fellow, and as I did so, stood looking at him. Catching the direction of my eye, he glanced down at his toes, and putting on a pitiful expression burst into tears, sobbing as if his heart would break. The parents' excuse was, that so many jiggers had accumulated, the pain of digging them out was greater than the child could bear.

Going on to the next village, to which our guides belonged, we spent part of a Sunday there. One of these guides, a young man, had a wife who, though not more than fourteen years of age, had an infant of about one year old. He told William that he and his wife could not agree together, and were going to separate, he having selected another girl in her place. This latter was of his own choosing, while his wife

was given him by his parents, who now agreed to sanction the separation on the ground of non-agreement of the parties.

On the 29th of September we reached Tumatamari camp, where I remained four days awaiting the arrival of Mr. G. R. Pollard, who was to have come up and joined the expedition at this stage, for the purpose of making collections for the Museum of the Agricultural Society in Georgetown. As he did not arrive, I continued my journey up the Essequebo, reaching the Carib village of Apoterie on the 13th of October. I there spent a few days, preparing for our ascent of the Essequebo, intending to follow it as far as my boat would be able to ascend.

The first night of my stay was a wretched one, owing to the spirit of disaffection abroad in the village, engendered by too frequent and heavy potations of casserie on the part of the natives. The row commenced at dusk by one Indian's wife holding a funeral dance in honour of the death of a former husband, with whom she had not lived for years, who had departed this life a month previously. She performed the part of leader, doing all the frantic work, such as throwing her arms about, and howling with crocodile tears in her eyes, while most of the other women danced solemnly in unison. They had a large piece of Haiawah tree (*Icica heptaphylla*) gum burning on the ground to give light to their proceedings. The row they made continuing till 9 P.M., with all appearance of lasting until morning, prevented any of my party from getting sleep, so some of my men went with all the musical instruments they could muster to

get up a counter irritation, thinking thereby to sto it. These consisted of a penny whistle, an Indian drum, and a banjo manufactured out of string and a piece of salt-fish box by the ingenious Paulie. The music discoursed was anything but sweet, still it had not the desired effect of breaking up the whirling dervish party, though it did make the members thereof laugh. Rescue, however, came from an unexpected quarter. The Carib captain's third wife in a family quarrel bit his arm, and he came down on the funeral party to get his second wife to come and assist at the chastisement of the third; but she refused, thereupon he began to beat her. Another man also had a row with his wife, who was of the party, and in the turmoil which ensued the dead man's funeral rites were forgotten, or adjourned to some future day.

On the 17th of October I sent back the "Ataraipu," one of my boats, to the Penal Settlement for the crew to be paid off, agreeing to re-hire them on the 9th of November to bring up a fresh supply of stores, to meet me at, or below, King William IV.'s fall in the second week of December. Upon the same day I left Apoterie in my boat, the "Roraima," with a crew of eight men, accompanied by the Carib captain to act as interpreter between us and any Taruma Indians we might meet at the head of the Essequebo. He was the only interpreter we could get, and proposed to communicate with the Tarumas by means of the Wapisiana language, which he supposed the former could understand as they traded with the Wapisianas

Our way for the first four days lay up the wide and dark-watered Essequebo, over a winding sluggish

portion, with banks lined by a heavy forest of Mora trees, which gave it a sombre monotonous aspect.

Fish of various sorts were either shot with the arrow or caught easily with the hook and line on this part, foremost amongst which were the Perai and Aruana.

In the clay banks in this part, and in fact on most of the rivers, one sees immense numbers of circular holes of various sizes, which are bored either by crabs or fish when the river is high. My men said that they are made by a fish called the Watta-watta, a singular, plated, sculpin-like creature.

Caymans (*Champsa nigra*) of large size were numerous and fearfully tame, and at night collected in the river in the vicinity of our camping places, seeking what they might devour. Whilst camping on some rocks on our third night out from the Carib place, the mosquitoes attacked us in such numbers that sleep was out of the question, so we took to catching and slaying caymans, and succeeded in despatching two. The proceeding was not very conducive to comfort, for the rank musky smell, emitted by the victims and their enraged companions, hung over our camp for the remainder of the night with sickening effect.

One day we fell in with a herd of bush hogs, and landing amongst them I succeeded in shooting one. That night, whilst camped on a low piece of ground at the mouth of a small creek, one of the men told off to cook went into the boat after dark to procure a piece of the hog for dinner. As he was stepping back from the gunwale of the boat, near its bow, to

the shore, a huge cayman, which was lying in wait, struck at him with its tail, for the purpose of sweeping him into the water within its reach. Fortunately he did not receive the full force of the blow, only the end of the tail catching him on one shin, but nearly breaking his leg. The sound of two more blows, given by the infuriated reptile against the boat's side, was so very loud that we were afraid it had smashed a plank; but such was not the case. Taking the boat lamp we went to the spot, and seeing the huge brute between the boat's bow and the shore determined to punish it without delay. A large hook baited with hog's meat was swung over it, when it made a spring and seized the bait savagely. After much champing and chewing it threw its head back, opened its mouth wide, and down went hook and bait. Five men then hauled in on the line, but the reptile, on feeling the hook in its stomach, made such fearful struggles that we feared the line would break, and so proceeded to play it by slacking out a bit. It then landed some thirty yards up the creek near our camp, and we heard it crashing amongst the small undergrowth in the forest. The line was therefore held fast again to stop it, while, with gun in hand, I went with a man, carrying the lamp, to dislodge it, as its presence on shore so close to us was anything but pleasant. Getting close to it I took the best aim I could, in the indistinct lamp-light, and fired a ball at its head, which evidently missed, for it wheeled towards me, and the sound of crashing of trees was greater than before. The man with the lamp fled, while I made the best of my way after him—no easy job in the

dark under ordinary circumstances, but one that I accomplished somehow, feeling convinced that a huge cayman was after me. It turned out that our flight was unnecessary, for while we were going one way it was making for the water in the opposite direction. Crossing the narrow creek it landed on the opposite side, where all efforts to dislodge it by hauling on the rope proved unavailing, till at last the hook pulled off the line, and the cayman was free to go anywhere it chose to digest the hook. Meanwhile many other caymans, attracted by the smell of the blood of the bush hog and the splashing of the hooked one, collected around in such numbers that at one time we feared they would come ashore and attack us. They remained about all night; and many times I was awoke by hearing single combats going on amongst their ranks, the splashing noise of which was accompanied by heavy tail blows and loud belching sounds. As to the stink of musk, it was simply abominable, floating like a deadly miasma round our camp, and finding its way even to our palates.

On our fifth day's journey we came to the first serious obstruction on this part of the river, called Murray's cataract, and after getting above it left our cayman friends for good. Upon the banks of the river in this part I saw the beautiful Urua palm (*Attalea speciosa*) growing, for the first time; the singular arrangement of the upper portions of its leaf stems, whereby its leaves stand edgeways in planes radiating from the tree's centre outwards, strikes one at once as peculiar and graceful.

Ascending difficult and dangerous cataracts was the

order of the day, from that out for sixteen working days, until we reached a point some distance below the mouth of the Cassikityu river, where from that on to our journey's end we had comparatively smooth water, and only a few cataracts of inconsiderable size to contend with.

The first fall we encountered, that really offered a difficult barrier to our progress, was one called by Sir R. Schomburgk, King William IV.'s fall. It certainly had a formidable aspect, and in 1836 prevented Schomburgk from proceeding farther up the river on his way to its sources, causing him to change his route, return to the Rupununi, and cross by land to the Cuyuwini from which he entered the Essequebo. Thus, about seventy miles of latitude on the Essequebo had never been explored; although an Indian chieftain, named Manarowah, nearly a hundred years ago, had succeeded in accomplishing the feat of passing up it, probably with small canoes, on a journey he made to the Taruma country to capture Indians, as slaves for the Dutch, who then were masters of the coast of Demerara. This man, however, encountered so many difficulties that he returned by way of the Cuyuwini river, through the Wapisiana country to the Rupununi.

Difficult as the ascent of the fall looked, there was nothing in it to appal men who had taken a boat past the cataracts of the Potaro.

There were, in fact, two falls, one on each side of a steep hilly island, bounded on the east and west by hills rising steeply from the water's edge, so that it was impossible to pass them by hauling the boat overland. The fall on the east side of the island, twenty-four feet

in total height, contained the greater body of water, which rushed over it with terrific force, excluding all possibility of taking the boat up it, as the rocks on either side did not afford enough level surface upon which to haul the boat. The fall on the west side, twenty feet in height, however, had ledges of rock extending along its east side, rough and steep enough, it is true, but still affording room for the boat and footing for ourselves. On these we placed skids and cross poles, all firmly lashed together in ladder form, and with excessive labour hauled the empty boat over, transporting the stores afterwards.

Not far above the fall the river became very narrow, being constricted to a width of not more than fifty yards by masses of gneiss rock, through which it ran with great velocity.

Our second great difficulty lay in passing a great fall, half a day's journey above King William IV.'s, which I have named Manarowah, after the above-mentioned Indian chief. This fall is a most singular one, being produced by the river, spread out to a great width amongst tree-clothed islands, passing down a mass of gneiss rock, fifty feet in height. Above is a succession of smaller cataracts, which makes the total height ninety feet. From the foot of the fall the river runs at right angles to its last course, flowing away in a narrow cleft, thirty yards wide, amongst the rocks along its face, with extraordinary velocity. Dense masses of foliage cover the intervening spaces of the fall's front, unoccupied by water; and the effect produced by the white foaming cascades, bursting out here and there amongst the trees, is very singular and charming.

After examining the steep face of the fall and finding not a ray of hope in its grim looks, nor a shadow of a chance of getting up it, I directed my attention to the exploration of the land on the west side, and with my men crossed over through the forest to the head of the fall. Finding the land pretty even and the slope gradual, we all agreed to make an effort to take the boat overland and launch her above.

Our Carib interpreter, whom we called "Parmu," that being the Caribise for "my friend," had by this time got weary of his journey or frightened at the falls, and concluded in his own mind that we should be unable to pass this fall. His spirits, therefore, rose considerably, and he looked forward to a speedy return to his home. Indian like, he would ask no questions as to what was to be our next move, when we returned from exploring the overland route and were breakfasting. At the conclusion of that meal he was sitting near me examining his pegall, containing his most valued worldly possessions, such as arrow-heads, files, flint and steel, red paint, feathers, &c., when I gave the order to the men to commence cutting our portage path. The effect this had upon him was most ludicrous to witness, for though he did not understand the words I used separately, he divined the meaning of the whole, and his face took upon it the stony gaze of despair. Bundling his things into his pegall, he placed it on the ground in front of him, giving it a kick that sent it flying and scattered all its contents. The whole action said so plainly—"You may go to the devil; I'll never have use for you again; I am going on to my death,"—that I could not control myself, but with the men burst into a laugh. There the old pegall lay till evening,

when we returned from our first day's road cutting, by which time Parmu took a more cheerful view of things, and gathered his treasures to his heart again.

Our second day's labours completed the entire work of cutting down the small trees level with the ground for a width of about ten feet, along a distance of exactly half a mile by measurement; of laying down rollers every two yards apart; and of bridging two gullies with large trees, having cross skids lashed to them. On the third day of our stay, we commenced the laborious task of hauling the boat over our portage, no easy matter, when it is considered that she was twenty-eight feet in length, and built of strong heavy wood. Six of us hauled on the tow-rope in front, while two men on either side of the bow, and two men at the stern, also assisted in dragging and keeping her at the same time on an even keel. In this manner we succeeded in getting her across and launched in the river beyond the fall, at a level of ninety feet above the point from which we started three hours before. By three o'clock that afternoon all the stores had been carried across and deposited in her, and we were on our journey once more. That evening, from our camp, on a small rocky island in mid-stream, I watched a splendid golden sunset, repeated by reflection, in the still dark water; and influenced by the death-like stillness of the place, a pleasing but utter sense of loneliness came over me, when I reflected upon our isolated position, cut off as we were from the civilized world by the two great rocky barriers we had so recently passed.

When engaged in the forest, cutting our portage, we were frequently visited by bands of large Quarta

monkeys, which were very numerous on the banks of the upper part of this river. They were the black-bodied, red-faced kind of large spider monkey, and uttered a sort of barking grunt. Their cry, when calling to each other, has a wailing sound, and is very loud. On seeing us, they used frequently to hurl down large dead branches, some of which came rather too close to our heads at times to be comfortable. The manner in which they performed this was singular; they held on by tail and hind feet to a live bough in a tree top, alongside of a dead one, and, pushing with their hands with all their force against the latter, generally succeeded in breaking it off, when down it came. Their actions, when swinging from bough to bough, are very graceful, and though performed with care and deliberation, carry them rapidly through the forest tree tops.

Whilst Ben was in pursuit of a flock of trumpet-birds, an eagle-hawk (*Harpyhaliaetus coronatus*) swooped down at him, and passing close to his head, lit on a bough before him; when, to punish it for its audacity, he shot it.

Paddling along close to the edge of the river, the men espied a tapir (*Tapirus Americanus*), or Maipourie, as my men called it, trotting through the forest. I immediately landed, gun in hand, and going about twenty yards came up to it, standing on a hill-side, about fifteen yards above me, seemingly not at all alarmed at my presence. Standing there amongst the tree stems, surrounded by beautiful shrubs and plants, in its native haunts, it looked a noble animal, with, perhaps, a vicious expression of counten-

ance, and a general antiquated appearance. One thing it sadly lacked to carry out the symmetry of its form, and that was, a tail, of much larger dimensions than the little stump that nature had provided it with. Levelling my gun, I took aim behind its shoulder, and firing, brought the poor creature to its knees. Struggling wildly to its feet, it made a plunge, and rolled a short way down the hill, where it soon expired, the ball having broken the humerus of the fore leg, and passed through the point of the heart.

Its snout was long, overhanging the mouth; its crest high, covered with a short mane. The men soon cut it up, carrying off the best parts, of which the crest was considered a *bonne bouche*, and that night we had a good feed off its beef-like flesh. It had three hoofed toes on its hind, and four on its front feet, all of which the men took off and saved, for the purpose of using when occasion required as charms for bites of snakes, stings of rayfish, and fits of all kinds. They said that the hoofs are first singed and then placed in water, which is drunk as a remedy. Can it be that the ammonia of the hoof is the substance that produces any good effect? No doubt, if plunged quickly into water when burning, some ammonia would be condensed and dissolved.

On a subsequent occasion, above the Taruma villages, when our larder was well supplied with dried meat, we came upon a tapir, and not requiring its flesh to roast paddled softly to within thirty yards of it unobserved, to watch it take its midday bath. It did one good to see the way in which it enjoyed its "tub," diving in the deep water, and plunging and splashing in

the shallow, throwing up its head every now and then, and twisting its proboscis about, disclosing its teeth. When at last it observed us, it made for the shore, and galloping up the steep bank, with surprising agility for so cumbrous a looking animal, disappeared in the forest.

Owing to the entire absence of representatives of the human race in this portion of the Essequebo, all members of bird and mammal life met with were exceedingly tame. Capybaras, which were numerous, appeared not to know in what light to view us; and when we were encamped at a large shallow cataract where there was a great spread of semi-submerged rocks, covered with aquatic plants (*lachis*), one of these animals came up so close to Ben, who was washing clothes, that he had to throw stones at it to drive it away. At one place the men gave chase over the rocks and shallows to three young water-haas, which, with their parents, were gazing stupidly at us. They succeeded in capturing two of the little ones after an exciting hunt, but gave them their freedom again.

The bush ibises, white cranes, and muscovy ducks would let us approach close to them before they attempted to fly. I shot twenty-seven of the latter on this journey, having some fine right and left shots. In the crops of some were found small river crabs and the flower buds of aquatic plants.

Our larder was kept plentifully supplied with Pacu fish, which were shot by the men as we hauled up cataracts. On one occasion, when one of these fish, pierced by an arrow, had gone down to the foot of a cataract, it was attacked by Perai, and when one of the men who

went after it, seized the shaft of the arrow, he found only about a quarter of the fish's body left upon it.

At various places we saw the large Comudi (water-boa) lying coiled up in a plethoric condition upon grassy spots on the river's bank, surrounded by numbers of cow-flies, which live upon its blood.

Numerous flocks of blue and yellow macaws (*Mocrocercus ararauna*) flew with discordant cries up or down the river, always approaching to have a look at us; while the blue and red macaws were seldom seen.

I learned a curious fact regarding the habits of the jaguar which is worth recording. On one occasion when we had landed, and were hunting a herd of bush hogs, two men were left in charge of the boat. We had not been away in the forest for more than two or three minutes, when the men in the boat heard a heavy foot tread on the bank above them, and looking up saw a large jaguar gazing down on them from the very spot up which we had clambered. They immediately pushed the boat off into the stream for safety, fearing an attack from the tiger, as they had no gun to defend themselves with. They told me that this jaguar was what the Indians call the master of the flock of hogs we had been hunting; that it follows them wherever they go; and that when it is hungry, and finds a pig a little distance from the rest, it pounces upon it, killing it with one blow of its huge paw. The squeak of the stricken hog brings down the whole herd to the spot, whereupon the jaguar climbs a tree for safety till the storm it brewed is over and the pigs have left the spot, when it descends from its perch

to feed on the flesh of its victim. I suppose when it has "cleaned out" an entire flock it seeks another one and proceeds as before.

A story is told of an Indian who was following up a flock of hogs to get a shot, when he saw a jaguar knock over a member of it as just described. When the flock bore down on the jaguar, it jumped upon a low fallen tree where it was surrounded immediately by the enraged hogs. Unfortunately for the jaguar it was not beyond their reach, and in a minute was dragged down amongst them, trampled upon, and ripped to pieces.

One can easily conceive how the numbers of bush hogs are kept down in this way by large tigers of various sorts preying upon them, but it is more difficult to understand what keeps the numbers of large tigers from increasing. They appear to have no enemies, nothing preys upon them, and the few killed by Indians would not affect their number in any sensible degree. Both animals increase at the same rate, the jaguar having from two to three cubs at a birth, and the peccarie about the same number of young.

At the last great cataract we passed we were within an ace of losing "the numbers of our mess," while crossing above one of the watery steps of which it was composed. Owing to the boat's bow not being kept sufficiently up stream, she was swept down this step and hurried backwards towards the foaming cataract bristling with rocks, and it appeared to me as if nothing could save us from perdition; but the strenuous efforts of the crew, combined with skilful steering,

brought her out of the rush of the current just at the nick of time, and we were rescued from our perilous position.

On the 9th of November we passed the mouth of the Cuyuwini river, a fine broad stream, and soon after came to an old Indian camp of five banaboos, the first signs of recent Indian life met with since leaving the Carib village of Apoterie. Near this were some large granite rocks, in passing which our Carib "Parmu" turned away his face in an opposite direction. Upon questioning him as to his reason for so doing, I learned that if he looked at them he would get fever.

On many of the large clusters of rocks in mid-river were the nests of a small species of Caprimulgidæ, called "Wockariyou." These can hardly be called nests, for the bird only lays its two small speckled eggs on a hollow in the bare rock, or in a little depression scratched in the gravel upon them. The parent birds do all in their power to entice one away from the nest, by fluttering along the ground as if wounded.

At Bubumana cataract there is a lot of Indian picture-writing cut on a large granite rock, being chiefly representations of monkeys and frog-like individuals.

After three days and a half's journey above the Cuyuwini river, we passed a large Indian clearing on the west bank, containing cassava plants, plantain, banana, cashew, pineapples, cotton trees, &c., and a short distance on, came to the landing place of a village of four houses which had evidently been tem-

porarily abandoned, as all the earthen pots, &c., for culinary purposes were still there.

We spent a Sunday encamped on a sandy island near the mouth of the Cassikityu or Dead river. As usual in such places there was an immense number of large sand-wasps hovering over it with a ceaseless buzz, and digging holes, in which they deposit their eggs. I watched their movements with interest, and though they wearied one with their noise and flittings, yet I had no ill-feeling against them, for though armed with tremendous stings they never used them against me, even when tramping over their nests. The manner in which they hook up the sand with their incurved fore legs and send it flying out behind them in a shower, is wonderful to behold. And what is still more so, is the manner in which one can ferret out its own nest, after it has covered up the orifice, on returning with captured insects as food for its larvæ when hatched. The value of these insects became apparent that day, when I observed that the victims they captured were chiefly different kinds of cow-flies, of which there is a superabundance in these parts, and which bite the human subject as well as any other animal. It seems that the poison of the sting, acting upon the system of their victims, reduces them to a comatose condition, in which they remain until the eggs of the wasp are hatched, when they form fresh and healthy food for the larvæ. As night approaches these wasps gradually disappear to return again to their toil at daybreak; but whether they go away to sleep or remain in their burrows, is not clear.

Off the sides of the river in this part were numerous

inlets or "pirihaas," the banks of the river near them being very low and covered with the prickly Soweri palm (*Astrocaryum jauari*), midst vegetation of a swampy character.

As we crept slowly up river, on our thirtieth day's journey since we had seen any human beings except those of our own party, we observed a small corial containing three redskins coming down river. The instant they saw us they turned their craft round in a frantic manner, and disappeared behind some large rocks. My men gave way with a will after them, and rounding a bend we came to their village on the east side of the river; landing immediately, we entered the village, where we found four men, a woman, and a girl, all in the greatest state of perturbation. None of them had ever seen a white man before, or people wearing clothes, consequently they looked upon us as supernatural visitors at first. They all trembled with fright, and quivered like leaves. Parmu at once addressed them in the Wapisiana language, stating, as instructed, that we were merely travelling in their country, were comparatively harmless, and that all we wanted from them were fresh provisions. They got us a few cakes of cassava and a few yams, for which we gave them some negotiæ. This prompt payment seemed to assure them of our pacific intentions, and the men became very friendly, but the women kept as far off as possible. Soon others who had fled at our approach dropped in one by one, until their number amounted to fourteen in all. Of these thirteen were Taruma Indians, and one a Maopityan or Frog Indian, who differed from the rest, and other Guiana tribes, in

the shape of his head, which was exceedingly long, narrow, and high, and had a most extraordinary appearance. This form of head is a manufactured one, being produced by the application of two flat pieces of wood to the sides of the head of the infant Maopityan immediately after its birth. There the wood is firmly bound until the head becomes flattened at the sides, and of course heightened at the top. This is somewhat similar to the custom of the flat-head Indians of North America, differing only in the application of the boards to the sides, instead of to the front and back of the head. The Caribs and Macusis place woven bands of cotton round their infant's legs and arms—below the calf on the former, and below the biceps on the latter—for the purpose of enlarging the muscles of those limbs. As the child grows they change them for larger bands, and wear them as ornaments in the grown-up state.

Another tribe of Indians, called Toonahyannas, or Waterpeople, are said to live more to the south, near the head waters of the Trombetas, who have ponds of water encircled by stockades, to which they retire for the night, sleeping with their bodies submerged. It strikes me that this is an Indian yarn, though it is true that there is a tribe called Toonahyannas.

The language of the Tarumas is a harsh and unpleasing one, in sound somewhat resembling Chinese. Their houses are conical and thatched with plaited palm leaves. Although they grow cotton they do not manufacture hammocks out of that substance, using those of twine, made from the young leaf of the Itah palm, instead.

They had no guns, but knew them well by their Indian name of "Aracaboosa." One old man begged leave to be allowed to fire off one of ours. When the gun was placed in his hands he appeared a good deal excited, and putting it to his shoulder, braced himself up firmly, spreading his legs wide apart so as to get a good base for the operation. Bang went the piece, followed by shouts of delight from his companions, while the old fellow turned round towards them with a face beaming with smiles, looking as if it was the proudest and happiest moment of his life.

These people told us that the members of their tribe, whose houses we had seen lower down river, had gone with three Wapisianas up to visit the Woyawaise tribe, who live near the sources of the Essequebo. The Wapisianas had come through by the Cuyuwini river for the purpose of bartering with those Indians for cassava graters and hunting dogs.

After a few hours' stay at the village we continued our journey, finding the river onwards very narrow, and in one place, where it had formed a new course across a point, we had great difficulty in getting our boat over the shallows. That day we had our first taste of rain, though ever since we had been on the Upper Essequebo we had in the afternoons heard the rumblings of distant thunderstorms.

Next day, whilst wending our way onwards, we met the Tarumas—twenty-two in number—belonging to the lower village, coming down river in corials from their visit to the Woyawaise. They did not appear at all alarmed, but came alongside. They had a large number of black-and-white hunting dogs, which barked

furiously the whole time, more in fear than in anger, it appeared, for some jumped overboard and swam ashore to get away from us. One good-looking young man of the party who spoke the Wapisiana language, informed the interpreter that they had left the Wapisianas and some of their own people up in the Woyawaise country, and that most of their journey had been overland for a great distance.

Amongst these Tarumas were two more flat-headed Maopityans, a man and a woman; the latter had a large tumour on the side of the abdomen.

At midday we reached a fork of the river where it divided almost equally, so we took the one to the east, which looked the deeper of the two; following its narrow winding course we came in the afternoon to a landing place where three corials were tied, and from which a path led inland to the Woyawaise country. Soon after passing this we found our advance completely cut off by large fallen trees lying across the river, and therefore returned to the other branch. Up it we proceeded a few miles, when we again came to fallen trees, through five or six of which we cut our way, and then came to a great mass of prostrate trunks, through which I did not consider it advisable to cut, feeling sure that all the remainder of the river beyond must be choked in a similar manner.

Having reached the farthest point attainable, and having examined the lithological character of the country, nothing remained but to return to the Lower Essequebo as rapidly as possible, before the short rainy season, then near at hand, should raise the water and cut off our retreat at King William IV.'s

fall, where a rise of a few feet would be sufficient to cover the ledges of rock by which we ascended.

At midday on the 18th of November we commenced our return journey, from a point 528 miles up from the mouth of the Essequebo, and 828 feet above the level of the sea, and running rapidly down stream, arrived at the Taruma village on the following day. On our way down we passed all the Taruma Indians we had met before encamped, who took to their boats and followed us to the village.

Upon our landing the Indians brought us the food they had prepared for us, and were delighted with the negotiæ they received in payment. When the men approached us their wives walked close behind them, and though wishing to see our boat, they were too timid to come near. When, therefore, a man came to examine it, his wife abandoned him and took refuge behind a relative or neighbour; but if he stood up at a distance, she stood close behind him, with her arms clasped around his waist, peering at us round his shoulder. If he sat down, she sat down behind him, with her arms clasped round his neck; and it was quite touching to see a row of front-rank husbands and rear-rank wives, squatting in this apparently loving condition.

These people asked our interpreter many questions regarding the Essequebo river from the Rupununi upwards, as they never had been farther north than a little way past the mouth of the Cuyuwini river, which they called the Canuwan. They wanted to know whether we had met Indians, kanaimas, bad spirits, and wild beasts on that portion of the river.

We continued our descent of the Essequebo, and, arriving at the mouth of the Cassikityu, ascended it for a day and a quarter. We then returned to the Essequebo, going down to the first Taruma village, where the owners, our travelling friends, had already arrived and prepared some cassava, yams, and pine-apples for us, being very anxious to procure articles of negotiæ in exchange. They had Avocado or Alligator pears (*Persea gratissima*), which they said grew on trees in their plantations, and had originally been procured farther up river.

All these Tarumas were healthy, strong-looking people, with but one exception. Some were fishing in the river for young cartabac, with hooks baited with the berries of the common calaloo, and were very successful. The hooks they used were old-fashioned, and apparently not of English manufacture.

After three hours' stay at the village, we bid adieu to the Taruma tribe for ever, and continued our journey.

On the way down we had some hog hunts, at one of which an amusing incident occurred. Parmu shot a pig with a poison rappu-bamboo arrow in the back, and leaving it standing in a semi-paralysed condition, ran on after the rest of the drove. I shot one pig, and then waited for the men to return from the chase, when Ben and Griffiths both passed me, armed with guns, the former considerably in advance of the latter. Ben came up to the hog suffering from Parmu's arrow, and, thinking it was standing there as a free agent, fired at it. The sound of the report startled it, when, making an effort to run, it fell; Ben supposing he had

killed it, ran on. It must then have struggled to its feet again, for when Griffiths came up and spied it, he also fired with like result. On the return of the men this hog was knocked on the head, the poison bamboo arrow pulled out, and the animal brought to the boat, where Ben claimed it as the result of his prowess. Griffiths was astounded at this, declaring that he had slain it himself. When, however, it had been scalded and scraped, it was found that not a single shot had touched it, and the arrow-head formed its only wound. The subject was a sore one to both men after their warm discussion, and was frequently brought up by the rest of the party, when the topic of conversation turned on shooting.

Another drove of hogs which we met were exceedingly fierce, and on hearing our footsteps charged down at us, passing close to the place where I was standing. Parmu, bow and arrow in hand, was directly in front of them, and not seeing a big tree to get behind, was nearly run over. He had just time to throw down his bow and arrows and spring into a small tree as the whole drove, closely packed, passed over the spot he evacuated; the back of one hog brushing his foot as he struggled upwards on his tree stem, causing him to call out lustily from fright. The cause of their fierceness was attributed by Parmu to the fact of their having been lately harassed by tigers. Parmu's plan of shooting hogs was to get in their front, and when they charged or ran, he stepped behind a large tree, round which the drove passed on either hand. As they held on their way, he discharged his arrows into the mass with good effect. Although

it seemed to be a dangerous proceeding, hemmed in for a few moments on both sides by hogs with a tree at his back, it was not so, for they never attempt to turn when rushing forwards in this way.

One night when camped on some rocks bordering the river, I tried my hand at Haimara (*Erythrimus macrodon*) fishing, and in half an hour landed five of these fine large fish, each measuring about two feet six inches in length. To catch them you throw out about two yards of line, and let the baited hook hang over the side of the rock. The fish bites heavily when you give a quick pull and hook it. One of them, when opened by the cook, was found to have two shin bones of bush hog in its gullet, which the men had thrown into the water just before I commenced to fish.

We spent a Sunday encamped near the mouth of the Cuyuwini, where I observed a large gray monkey busily foraging for spiders, &c., in the top of a high tree. He knocked down a large wasp or Marabunta nest, and then dislodged a large green snake which jumped out of the tree top, falling into the water from a height of fifty feet, evidently very anxious to get out of the monkey's way.

Our work in getting down some of the large cataracts was hardly less arduous than in ascending them, and certainly much more hazardous. At many of them we had to unload, and transport the stores over the rocks, and then run the empty boat down. One of those we ran in the main channel, where the water in a mass of great depth poured through a gap some fifty yards wide, like a green sea, curving down at an

angle of 40°, was six feet in height. At the foot it was a mass of foam, tailing off to a point a couple of hundred yards beyond, the intermediate space being occupied by a succession of short waves, curling their crests back towards the fall, as they rose and fell. The word "headway" was given as we neared the top, and with full speed went at it, reached the edge, and plunged down the slope with almost lightning speed, the boat burying herself forward in the foam below, and rising quickly as soon as the first wave caught her, sending the spray flying back over us and deluging the bowman and the next two paddlers. Then we tossed up and down on the waves as we ran on, until we came to smooth water beyond.

Another cataract, where a great rock lay in mid-channel at its foot, upon which the whole body of water drove with great force, was skilfully run; but in spite of every effort, the boat brushed against the rock in passing, causing us no little anxiety at the moment.

We hauled our boat over the portage of Manarowah fall on the 5th of December, and on the following day passed successfully over the rocks of King William IV.'s fall. On reaching Murray's cataract on the 7th we expected to meet our other boat on its way up river; but though there were footprints on the sands, my men concluded that they were not the tracks of our men, but those of Indians. I greatly feared that we might have passed it amongst the islands above this cataract. This however was not the case, for on the following day whilst breakfasting the "Ataraipu" was seen coming up river, and soon afterwards joined us.

It was with great pleasure that I perused some intelligence of the outer world, from newspapers and letters sent me by Georgetown friends. When I left that city in September, news had but lately arrived of the breaking out of the French and German war, and now I learned that the Emperor Napoleon was a prisoner in Germany. Not having had any news leading up to this result, I was not prepared for such astounding intelligence as the fall of the Second Empire.

I learned from my men that Mr. Pollard had come up with them, and that they had left him ill with fever at the Carib village in the care of Paulie. We therefore continued our downward journey with all possible speed and reached Apoterie on the afternoon of the 9th of December.

On the way down we came up with a corial containing three Indians from Apoterie — subjects of Parmu—who had been sent up in search of him. They had got as far as Murray's cataract, and seeing no signs of their chief, had concluded that he and all of us had been lost.

I found Mr. Pollard much better, and only in need of cheering up, a little quinine, and removal from the Carib place, of which he had got thoroughly weary. It was a great pleasure to me to meet him and have a companion of kindred tastes for the continuation of my journey.

Old Parmu's entry into his capital, rigged out in war paint, and crowned with a feather hat he had brought from the Taruma country, was worth seeing; while the yarns he told his people must have been

worth hearing, for they all crowded round him and dwelt upon every word he uttered. Native drinks were brought him in such quantities, that before the evening was over he was helplessly intoxicated.

My servant Griffiths, who had been unwell and very irritable for some time, was seized that evening with an epileptic fit, in which he remained for a considerable time. It took three men to hold him: his sufferings were painful to witness. The men put salt in his mouth and rubbed it also into the palms of his hands, while an old Indian woman was very attentive, burning some dried leaves of a peculiar kind under his head, that he might inhale the smoke and obtain relief.

We turned-in that night under good roofs for the first time since the day we left Apoterie on our journey up river; and thus terminated the first portion of my journey.

CHAPTER XI.

UP THE COTINGA.

Ascend Rupununi — Christmas Day — Walk to Takutu — River Porpoises — Spoonbills — Ascend Ireng to Pirara River — Cross over to Aringwong — Descend Takutu to Cotinga — Ascend Cotinga — Black Flies — Savanna Fox — Meet Wapisianas — Journey Northward — Amusing Scene crossing the Karnang — Ascent of Ireng — Orindouie Fall — Return — Indian Huntsmen — Descend Cotinga — Wild Cattle — Fort St. Joaquim — Return to Karinambo.

LEAVING the Carib village the day after our arrival, we ascended the Rupununi river to Karinambo village, from which place I sent back the boat "Ataraipu" to the Penal Settlement, with orders to the crew to return again with the last load of provisions on the first day of February.

Near Watama creek we met a party of Indians fishing, near whom were five caymans, with their heads above water, lazily watching their proceedings. One Indian was perched in a tree top overhanging the water, bow and arrow in hand, watching for turtles. He hailed us in the usual Indian mode with the deep sounding "ha-ie," and we recognized in him our old friend Germain of Annai village.

I shot a Wallaba bird (*Cancroma cochlearia*), of a grayish colour, with large boat-shaped bill. These birds are nocturnal in their habits, roosting in trees over swamps during the day, where they utter a curious frog-like call.

In passing the bend at Mora, we came up with a party of Mora Macusis, with whom was the guide who had taken me to the Ireng river in 1869. Amongst this party was an unfortunate woman, whose attenuated body formed a most shocking sight. She was a living skeleton, being nothing but skin and bones, with the exception of the face, which was not reduced in proportion to that of the rest of the body. They told me that this woman had come to them from the Ireng river district, where she had been poisoned by Kanaimas, and that this accounted for her wasted condition.

From Karinambo we went on to Pirara landing, which we reached on the 20th of December. On the three succeeding days we were engaged in conveying all our stores to a village, three miles inland on the savanna, near the Marooca river, called Aringwong. This was a most tedious job, as we had to get a corial up the narrow Awaricurru channel into the Marooca inlet, transport the stores to it, and then convey them up the inlet to the mouth of the Marooca river. From that spot they had to be carried overland for one mile to Aringwong, and there stored in one of the houses. In these operations twenty-four men were engaged, twelve of whom had been sent to assist us by Captain Passico of Carenacru.

Christmas Day was spent at Aringwong; what I suffered on the night preceding that festive day will never be effaced from my memory. In a small house given up to us for our stores and selves we slung our hammocks. Retiring to rest at 10 P.M., we—that is Mr. Pollard, myself, Ben, and William—fell asleep.

After a doze of two hours' duration, filled with troubled dreams, I awoke to find that I was literally covered with fleas, which directed their attacks principally against my back, head, and hands. Lighting the lamp, I examined my hammock and found it swarming with them. As a rule, one flea is enough to deprive me of a night's rest, so I abandoned all idea of further sleep, and went out in the starlight for a walk. Tiring of this, I returned and read an old newspaper through from beginning to end, smoking savagely. What made my case all the more unbearable, was to see the way in which my companions slept, the fleas apparently not biting them. At 2.30 A.M. I turned into my hammock again amongst the fleas, had another nightmare doze of an hour and a half, and was again fairly driven out. I then walked about outside the house watching the splendid constellations as they passed slowly overhead; saw the morning star rise, the red clouds gather in the east, and lastly, the glorious sun rise majestically from the plain ushering in the Christmas morn.

During the day, Ben shot some pigeons and manufactured a most creditable pie, sticking their little feet up through the crust in the most orthodox style. The men had likewise constructed a pudding made of flour, water, and raisins. It was an unfortunate affair from beginning to end, for when dinner time arrived, and it was taken out of the bag in which it had been too loosely tied up, and emptied upon a piece of coarse rice bag, it was found to be only half cooked. Consequently it burst, the interior running out and gathering some gravel in its lava-like flow. It was gathered up

and re-boiled, and when turned out for the second time, consisted of two large pieces, one of a cubical form, the other triangular, while the molten centre had turned into a sort of soup. When subjected to mastication, it was found that the cook had forgotten to put in any sugar; but this was easily remedied.

On Christmas night, I had my hammock, which had spent the day in the sun, erected some three feet from the ground, and rushing into the house, bounded into it before a single flea had time to cling to me, thus obtaining a pleasant night's rest. Fleas can jump a good distance in a vertical direction, but they cannot span a space of three feet.

We left Aringwong next day, with our eight men and ten Indians carrying loads, our intention being to make an overland journey to an Indian village, called Yarewah, on the Takutu, at the western end of the Canuku mountains, in order to procure corials for a journey up the Cotinga river, the Indians having informed us that we could not obtain any sort of craft on the Ireng river, or, in fact, anywhere nearer than that place. The day was remarkably hot without any breeze whatever, which made our walk an exceedingly unpleasant one. Still more unpleasant was the wading of the wide black-mud bog near Carenacru.

On the way, in passing a grove of trees, a large jabiru was seen perched upon a tree. I took a long shot at it and brought it to the ground, but being only slightly wounded, it escaped by hiding in the thicket. Curious to relate, just nine days after, as we were approaching Aringwong on our return, we saw two jabirus in the distance; on stalking them they flew

away, but one did not go far, however, before it came to the ground and took to its legs. Seeing that something was wrong, I gave chase, accompanied by one of the Indians carrying a gun. Coming up with it the Indian's gun snapped, and not having another cap the weapon was useless. The Indian then got a stick and slew the poor bird, which turned out to be the very one I had wounded on our way to Carenacru. It showed fight when the man approached, making a rattling noise with its great upcurved beak, and puffing out the scarlet skin round the base of its neck.

On the evening we spent at Carenacru, an Indian from the Canucu mountains came in with the intelligence that an armed party of Brazilians from Fort St. Joaquim had come up the Takutu in five bateaux. and seized some Macusis, who subsequently escaped. He said they had horses, and were then on the English side of the Takutu marching on Passico's village. The villagers became alarmed, and old Passico accompanied us next day to inquire into the truth of the matter. At the second village through which we passed, we learned that the Brazilians had turned back; whereupon Passico and his retainers left us. We subsequently learned at Yarewah that no Brazilians had been lately as far as the Takutu, and that there was not a word of truth in the tale brought by the Indian to Carenacru.

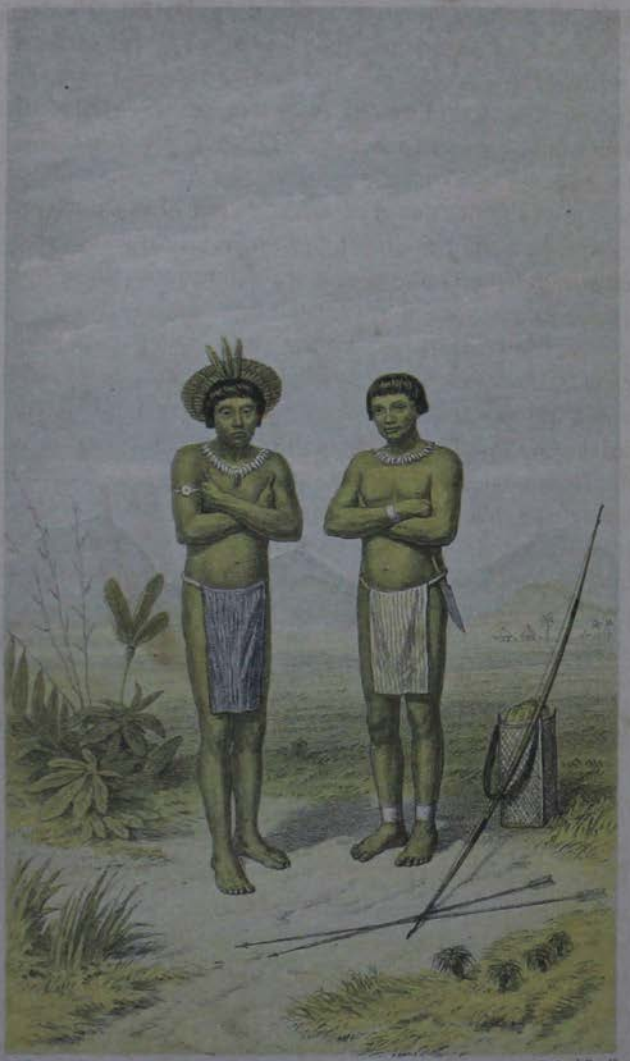
We crossed the Nappi, a few miles from the foot of the Canucu mountains, but owing to the dryness of the season that river was not running at the time, only containing pools of stagnant water here and there in its bed. One of the pools by which we passed

contained a mass of dead and live fish, and stank horribly. These fish were chiefly hoorie, and had been thus entrapped as the river water gradually evaporated. Some other pools, which the water had entirely left, had moist, muddy bottoms, in which the Indians dug with their hands and hauled out numbers of Hassa fish, all in good condition. These fish can live for a great length of time in moist earth or mud. They are small, being covered with a complete armour of elongated scales.

We had various bogs to cross, and a large branch of the Nappi, called Haiawahouta, to wade, in which, strange to say, there was plenty of water.

On our third day's walk we stopped to cook breakfast at a large dilapidated house, which leaned away from the direction of the trade wind, being propped up with poles to keep it from falling. In it were seven people, amongst whom was an exceedingly old man, wasted by age and ill health. He could not live long, and the old house was propped up so as to last his time. When next we passed that way, on a subsequent journey by land to the head of the Takutu, we found the house still standing, but deserted for ever, and the old man's remains interred in its earthen floor.

The guide took us to a village at the foot of the Canucu mountains, and then across a level plain in a westerly direction. In passing over this plain in the afternoon the wind died away, rendering the heat almost unbearable, the direct rays of the declining sun striking upon our faces. On coming to the Macumuca river we rested awhile on its banks in the



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COWARIE AND SARQUAH

shade of the belt of trees growing along it. Heated as all the Indians were, they immediately plunged in and bathed.

Late in the afternoon we reached a village of Wapisiana Indians, where we stopped for the night. Two hours' farther walking brought us to the village of Yarewah, on the east bank of the Takutu river, where the head man of the place, a tall Macusi, with an aquiline cast of countenance, hired us three old corials for an unlimited period.

The river near the village was wider than the Rupununi at Annai, but owing to the lowness of the water at the time it was shallow, with large sand-beaches at the inner sides of its bends. Bathing in it was rendered a painful proceeding by those horrid pests, the small black flies, or Cabowroos, which literally blackened our skins the moment we emerged from the water, when thousands were rubbed to death under the towel.

We sent back all our Indians, save Cowarie (or John, as we called him) and Sarquah, two fine young Macusi men, who remained with me during the remainder of the journey.

Next morning we started on our journey down the Takutu, in order to take our boats to the Ireng, which joins this river, and then up it to the mouth of the Pirara river, so as to get as near as possible to Aringwong, our provision depôt.

We were now on branches of the Rio Branco, and therefore on the river system of the Amazon valley, while those rivers we had left and lately traversed belonged to the Essequebo valley. Our stores were

near the Rupununi, whilst the nearest point to them that we could hope to bring our boats, now that all the rivers were low, would be thirty-seven miles away. Had the rainy season prevailed at the time we could have got our boats up the Pirara to Lake Amucu, and by bringing our things in boats up the Marooca to Quatata, would then have only a portage of about half a mile to span from one river system to the other.

The Takutu runs with a general northerly course until joined by the Ireng coming from the north-east, when it turns and flows with a south-west course to its junction with the Cotinga river, from which point onwards it runs towards the south. It at first was a mere chain of great deep pools with little or no current, except where one emptied itself into the next below, over sand shallows of forty yards in width and eighteen inches in depth. These shallows, occurring every hundred yards or so, delayed our progress considerably, the largest corial having to be partially dragged over them. Its banks were from twenty to forty feet high, with but few trees or shrubs on them, the surrounding country being open savanna. As its bed was wide, and its bends long, we obtained some fine views of the Canucu mountains from its extensive sand-beaches.

The water of the Takutu belongs to the milky class, but where it lies in deep pools its colour, by reflected light, is from grayish-blue to greenish.

At noon, on our second day's journey down the Takutu, we came to the mouth of the Ireng, and turned up it. This river contained at the time a greater body of water than the Takutu, and its

brownish-black colour formed a marked contrast, at its junction, with the greenish water of that river.

Upon the sand-beaches of the Takutu we saw numbers of Orinooco geese (*Chenalopex jubata*), and a large species of ibis; the former being very tame, from not being molested by the Indians, who do not consider their flesh a fit article for human food. In the inlets, off the sides of the river, were flocks of beautiful roseate spoonbills (*Platalea Ajaja*) and wicissi ducks; while savanna kites and vultures soared above us in the air. At the mouth of one inlet two large river porpoises (*Delphinus sp.*) swam out, showing their heads and backs above water for an instant, and blowing up small jets of water through their nostrils with a puffing sound.

In crossing shallows we frequently saw large fish darting up river, at which the men made blows with their paddles, and in one place, after a most exciting chase, succeeded in killing one, which proved to be a coulite or tiger-fish (*Platystoma tigrinum*). It had no scales, but its body was marked with broad black stripes.

We spent Sunday, January 1st, 1871, encamped on a small sand-beach on the Ireng river. Mr. Pollard and I crossed over to the western side, and, climbing the high bank, set fire to the savanna grass, which, being dry, caught easily, and spread with great rapidity, the broad band of flames rushing off before the strong breeze with great velocity, leaving behind it a long lane of blackened waste. Our fire got into a small grove close to the river, and there blazed away all the evening. Over it wheeled large owls above

the smoke, their bodies gleaming with a golden hue when seen by the light of the flames below. In the clay bank were holes, probably made by kingfishers, but then tenanted by small owls, and on the slopes beneath them were skulls and bones of mice, and other small rodents, which they had killed.

A tapir came to the river after dark and swam down past our camp.

Next day we reached the Pirara river, and entering it for a short distance were obliged to land, the shallow condition of the river preventing our farther ascent. Here we formed a camp, where we left our surplus stores, hauling our boats up on some rocks in readiness to receive repairs on our return from Aringwong. Leaving camp on the following day we walked across the savanna to Quatata village, where we spent the night, and next morning went on to Aringwong.

At Quatata I saw a most curious Æolian musical instrument, of Indian manufacture, composed of three large leaf stalks of the Itah palm, stuck upright in the ground, a portion of the hard outer part of which was cut longitudinally in three parts, and raised on a bridge like the strings of a fiddle. The wind blowing through these produced very sweet but mournful musical sounds. When starting from the same place I wished to buy a fowl; the Indian women brought me an old bird, with spurs a couple of inches in length, betokening great age and toughness. Upon my saying that it was too old and would not do, they went and caught a little chicken, with scarcely six feathers on it, and inquired of the interpreter, in a very chaffy manner, whether that was young enough for me.

At this point of our journey Mr. Pollard came to the conclusion that it would further the object he had in view, of making collections of plants, birds, &c., were he to remain at Karinambo instead of going with me up the Cotinga. From our late journey, he found that he would be unable to do much in that way when moving from place to place, especially when our corials offered so small a space for the storage of his collecting materials. We were both sorry to lose each other's companionship, but a sense of duty prevailed over private feelings, and we bid each other adieu. I sent him down in the boat to Karinambo, with Paulie as his attendant, and as soon as my men returned to Aringwong, I made my way back to the place where we had left our corials on the Pirara river, accompanied by my seven men and twenty-one Indians, all carrying heavy loads of provisions.

The first portion of our journey, after leaving Quatata, was over undulating savanna, while the latter part was over a level open plain. On one of the undulations there was a large grove of trees in which the Indians said a horse took shelter, coming out at times on the open to feed. They pointed out his tracks to me on the sandy places, saying that he was very savage when approached. He had evidently strayed from Fort St. Joaquim, and crossed the Takutu river to this savanna.

Over a large portion of the level tract the grass had been recently burnt, and the ground was covered with its blackened ashes, which blew up into our faces as we walked along, and made us look like a set of sweeps. Numerous small circular whirlwinds swept across the

plain, carrying up clouds of ash and dust. One of these, of unusually large dimensions, rose rapidly, not far from us, in a cylindrical form, somewhat resembling the smoke of a large fire. So like was it that it completely deceived a kite, which, flying towards it, rose up to hover over the supposed smoke, in order to pounce on vermin, started by the fire which it inferred was beneath. This bird never made a greater mistake in its life, for the upward revolving current of air caught it, and with wings outspread, apparently unable to escape, upwards it went with great rapidity. Feeling deeply interested in its fate, I watched it until it became a mere speck, and then faded completely out of sight in the grasp of the whirlwind.

Small coveys of quail (*Ortyx cristatus*) frequent these savannas, which are most delicious eating when roasted on a stick over the fire.

We spent two days at our camp, repairing our corials with materials brought over from our stores at Aringwong. Each corial had a single plank along its sides to make them higher, which, being in a shaky condition, had to be nailed on afresh; and their numerous splits and cracks had to be caulked with oakum and coated with pitch. The place we occupied in this work resembled a boat-builder's yard, and resounded with the noise of the caulking hammer in a most enlivening manner. The sun was awfully hot, and its rays beat down upon us, whilst at work, in a most unmerciful way. Late in the evening, after the day's work was over, I went fishing with Ben and William in one of the corials, and enjoyed the sport immensely, the fish taking the hooks with avidity. We

hauled in five Baiara (*Hydrolycus scomberoides*) and one perai, and hooked a large porowarima, which dragged our craft rapidly through the water. It soon became exhausted and was hauled up to the edge of the boat, when the hook, which had only gone through its upper lip, was quickly freed by one cut with a knife, the great fish sinking quickly out of sight. Whilst thus engaged, a fish resembling a shâd jumped out of the water, and falling into our boat, was captured.

On the 10th of January we started on our journey down the Ireng to the Takutu; and then on down the Takutu as far as the mouth of the Cotinga river up which we turned on the afternoon of the following day. As the strong north-east trade wind blew down the Takutu in our favour, we hoisted impromptu sails, and went along at great speed. One boat had half of the canvas awning rigged as a square sail, another two blankets, and the third a large tree branch. I enjoyed that sail immensely, so silently and swiftly did we glide along past great wide stretches of light-coloured sands, now on one side, now on the other; and on past gray clay banks, sometimes capped with belts of trees, at others with waving grass. The breeze was very squally and used to blow in strong gusts, sending clouds of sand, like drifting snow, along the great stretches of beach. On one occasion when the boat with a blanket sail ran up more woollen material to try and overtake us, we shook out a reef in our canvas just as one of these squalls came on, when down went the whole arrangement of mast, sail, sheets, and shrouds, blown fairly over the bow, while the other boat passed us on the wings of the wind. Trifling episodes like

this gave us something to laugh at and talk about, and relieved the dull monotony of our voyage.

The Takutu, from bank to bank, averaged between three and four hundred yards, but scarcely one-half of this was occupied by water at the time.

We camped for a night on one of the great sand-beaches, where the men dug up numbers of the large river turtle's eggs, obtaining a hundred and fifty-two eggs from one nest.

Porpoises were continually coming up close to us, and frequently followed us for long distances.

Just as we entered the Cotinga we heard a curious sound, somewhat like heavy breathing, proceeding from some trees at the river's edge, which we found was produced by a bird rejoicing in the euphonious name of "stinking pheasant." It is the crested cecelia (*Opisthocomus cristatus*), which lives in trees bordering river edges. Its flight is short and heavy; it appears to be very clumsy, falling forwards and apparently losing its balance whenever it alights, remaining for a short interval with its wings outspread. On bringing the head of a specimen I shot, within a few inches of my nose, I inhaled a whiff of its perfume, which, to me, resembled a mixture of bad musk and ammonia.

Our work in ascending the Cotinga in no way differed from that on our journeys up other rivers. There was the usual crawling up stream under the dull monotonous thud of paddle strokes; there were the usual stretches of smooth water, interlarded with the usual amount of cataracts; and there was the daily struggle to obtain a supply of meat food with

the war cry of "death to every edible animal." One pleasant thing about this river was, that it ran through savanna country, and though trees lined the tops of its banks in places, they were only in narrow bands; so that on landing I could enjoy the sight of grass-covered plains, with distant mountains, and freely breathe the dry fresh air.

One Sunday, when encamped at Warara-sararu cataract, I took some long walks inland from both sides of the river. On the west side we passed over undulating country, and found a large pond surrounded by long grass and rushes, teeming with muscovy ducks, wicissi, blue-winged teal, spoonbills, &c. What surprised me most was to see the tracks of a herd of cattle, and the bleaching bones of one of its late members. We at first thought that the herd might belong to the Brazilian farm, near Fort St. Joaquim, some fifty miles to the south, but afterwards found that they were wild cattle, which must have strayed from that farm many years ago. After potting some of the ducks, Ben and I continued our walk, and started a savanna fox (*Vulpes cancrivora*), which went away in fine style. It is called Mikang by the Indians, and is a diminutive grayish animal, with a bushy tail.

From a low hill-top, the views I obtained of the Pacaraima and Parima mountains to the northward were very fine. The grass on the savanna was singularly green and fresh, and the low scattered trees grew at such regular distances apart, that it almost appeared to me that I was gazing upon a huge orchard of young fruit trees.

Flocks of muscovy ducks were numerous on all parts of the river, and we partly lived upon them during our journey in the corials. At night, before dark, they flew up and down river like bats, affording me some flying shots.

The chief drawbacks to our comfort were cabowroos, or biting black flies, and those other torments, the little white-bodied savanna flies, which were in myriads, and gave us no peace throughout the day. With the setting sun they retired to rest, to reappear at the break of day. We all had our heads tied up in handkerchiefs to keep them off, and looking like a parcel of old Highland Scotch-women. When a puff of wind came these tormentors disappeared, dodging down on the sand or on the bottom of the boat until it passed, when up they came again and renewed their attacks.

I was greatly amused with the appearance of two young but fully-fledged jabirus, which stood on their large flat nest, composed of sticks entwined together, on the branch of a large isolated tree, growing on the river's bank. They looked like two shipwrecked mariners on a rock in mid-ocean, waiting to be delivered from their lonely watch by a passing ship. They stood there as if scanning the horizon, apparently deep in thought, shifting their position now and then from one leg to the other, or taking a solemn and stately stroll round the confines of their nest. Thus we left them, to await the time when their powers of flight would be sufficiently developed, to enable them to go forth into the world and forage for themselves. They were fully feathered with a gray

plumage, which on moulting would change to pure white.

Beyond Warara-sararu cataract we came to huge solid granite rocks, forming two hills on either hand. That on the east side of the river is called Mikang-yepatori, which means "father of the savanna fox." Not far on we passed the mouth of a large branch on the west, called the Zuruma river, and spent a night near Mount Piriwai. At the southern foot of this hill, a few hundred yards from the river, a large area of level land is covered with broken pottery, indicating the existence at one time of an extensive village on the spot. There are also slabs of rock placed flat on the ground, in shapes resembling graves, probably marking the resting places of the ancient people of the village.

After passing the cataract of Aratiari, about two days' journey up river, we saw an Indian corial made fast to the bank, and smoke arising from savanna grass recently set on fire. These were the only signs of natives we met with, until we reached the end of Mikang-pati mountain, where an Indian path led from the river to a cassava field. Not far beyond that place, and near the mouth of the Tuanu river, we caught sight of six redskins, amongst some low shrubs on the right bank of the river, watching our movements. We hailed them, when they immediately approached us, making most anxious inquiries of the interpreter as to whether we were Brazilians or English. Learning that the latter was the case, they threw off their timidity and welcomed us as friends. Judging from our coming up the Cotinga that we were Brazilians

from the Fort, they were in a fright, knowing that the "Cariwas"—as they call both Portuguese and Brazilians—would not visit them for any good purpose. They told us that the party of Indians, whose canoe we had seen at Aratiari, had spied us, and fearing that we were Cariwas had come home overland to warn the rest. Consequently our movements had been watched for some days, and the news of our ascent of the river was known to all the inhabitants of the vicinity. These Indians, though Wapisianas, spoke the Macusi language, and my interpreter was able to converse freely with them. We went on a short distance and camped at Tuanu-sararu cataract, whilst the Indians went off to their village to tell their people that no danger was to be apprehended from us. It was not particularly pleasant to reflect upon the intelligence communicated to us by the Indians, that we had been taken for enemies, and watched as such for days, and that we might at any time during those five days have been set upon and slaughtered.

About dusk that evening we were visited by a party of forty-one Wapisianas, who brought us some fresh provisions, amongst which was a small quantity of unshelled rice, which they had grown themselves.

At Panatsikameru cataract we were met by some Macusis, who had come to meet us, who followed the bank of the river till we came to the landing of their village at Wirina creek, where, in answer to inquiries, they informed us that it would be better to leave our boats whilst on our land journey over the mountains, as the Cotinga at the time was not navigable much farther on.

Our course up the Cotinga had been in a general northerly direction through the great savanna, and we had now arrived close to the place where it debouched from the mountains, from whence its channel was impeded by cataracts, rapids, and rocks.

Leaving our boats in Wirina creek, we carried our stores to the village of Tamarchelle, which consisted of six large houses, containing some forty Macusi inhabitants. It is situated on the grassy plain, about one mile from the river and two from the southern foot of the Pacaraima mountains. The inhabitants, who were exceedingly dark-skinned, had amongst them seven remarkably old people, with gray hair, and deeply wrinkled bodies. The chief, or head man, was of small stature, old, and dried-up looking, but as lively as a cricket. He wore a hat, with a wide rim, made of young palm leaves, and always carried a hard-wood war-club, as a sort of badge of office, whereby he received the nickname of "policeman" from my men.

I had great trouble in getting men to carry loads for me on my journey northward through the mountains, and was almost at my wits' end, when two Indians came from a village near by, called Terchillewan, and offered their services. The morning after our arrival everything was ready, my seven men, two Carenacru Macusis, and three Terchillewan Indians, having their loads, but still leaving two packs unappropriated. The old chief then ordered two of his people to take them, which they reluctantly did; at the same time he informed me that he would accompany us himself, merely as a companion. With his hat, which ap-

peared to be a trouble and a curse to him, and his war-club over his shoulder, he joined the line of march, and we started on our tramp.

Arriving at the foot of the mountains we traversed a low spur, and following a path not far from the eastern bank of the Cotinga, crossed the Waiquah river to a Macusi place, from which we went on to our guide's village. On a low hill above the Waiquah, where we stopped for a short time, I observed a huge artificial mound of earth and small stones, which the guide said was the grave of the Mackunaima's brother. It would seem that the Great Spirit is a dweller in this region, for an isolated rocky mountain, seen from the Cotinga lower down, at the head of the Mauitzie river, is called Mackunaima-outa, which means the "Great Spirit's house." I have frequently observed small artificial heaps of stones, some three or four feet in height, on the sides of the paths over the savanna mountains, to which the Indians with me in passing have added, by picking up a stone near by and dropping it on the heap. I could never learn their object in so doing, for when questioned about it they only laughed.

Not far from Mackunaima's brother's grave there is a large isolated granite rock, which has been rent from top to bottom, presenting a very singular appearance, being similar to the large split rocks so frequently met with in the cataracts of the large rivers.

Our Terchillewan guide informed me that he remembered the time when Schomburgk spent two months at a place called Torong, close by, and that a brother of his had been taken by Schomburgk away across the seas.

At Terchillewan our party was joined by the guide's brother, an elderly man, and three women, who were going in the direction of Roraima, and wishing to have the protection of our party, induced our guide to lead us if possible in their direction. We had not, therefore, gone far from this place next day before he brought us to the Cotinga, evidently the direction in which his brother was bound, and said that we should have to ford it. I had him told that his little game would not do, and that he must take me the way I wanted to go, or not at all. The brother and party then forded the river in some swift running shallows, where the water took them up to their waists. Carrying their loads on their heads, and holding each other by the hand, they got across with some difficulty.

We then proceeded up the valley of the Cotinga, and following it to its junction with that of the Cumparuyamo river, turned up the latter for some little distance. On our way up the guide pointed out three or four cassava fields, in small groves high up the mountain side on the left, some of which, he said, belonged to his village, the others to a village a few miles off. These fields were at least seven miles from his house, and must have been made on account of the soil in that part being well adapted for the growth of the cassava.

Having no awning to put up, the act of camping was rendered a simple matter, consisting merely in tying our hammocks between trees, in any small clump of bush selected as a residence for the night. The leaves of the trees, having been affected by the drought, had curled up so, that they did not afford

much protection against the moon's rays; but I used to get some shelter from one side or other of my hammock. As it is a popular belief in the tropics that sleeping in the moonlight twists one's mouth, I used to go to sleep haunted by the pleasant reflection that perhaps on waking next morning I should find my mouth inconveniently turned towards one ear.

From the Cumparuyamo valley we ascended the porphyry mountains, climbing the precipitous side of a deep gorge, and coming to a valley over 1000 feet above the sea. Traversing it on the following day in a north-easterly direction we passed some small villages and came to the Sacaouta river, crossing it a few miles from the spot where I passed it on my way to Roraima in 1869. We then ascended a pass to the east of Cumararing mountain, 1672 feet above the sea, and down into the valley of the Ireng river, putting up at a half-finished house for the night. Thus in twelve hours' walking, including some stiff climbing, we accomplished the entire distance between the Cotinga and Ireng rivers, while, by the position of the Ireng on the old map, the distance is such that it could not be done in thirty-six hours.

Our Indians had three dogs with them which started a mikang, and went away in full cry, but the little fox covered the rough ground more rapidly than they could, and left them in difficulties after a short and exciting chase.

From Cumararing we went north over four great ridges until we came to a village, called Tacara-erimone, where the inhabitants, taking us for Cariwas, fled at our approach, but returned after a short absence.

Beyond this we passed over a wooded mountain, and went down the long sloping side of the valley of the Wailongteur river to a village, where we had to remain a day, whilst provisions were being prepared for us.

Up to this time the weather had been fine, but as we went northward, it began to break up, and rain-squalls passed frequently across the country, while heavy black clouds hung over the mountains to the northward.

A rainy day in an Indian village is not by any means pleasant, for from early morning till night gangs of natives squat about watching every movement, and making one feel what an extraordinary individual he must be to form such an object of wonder.

I crossed the Wailongteur in a long corial which had lost one side, and had to be paddled in a very gingerly manner on its beam-ends. We traversed the valley and ascended the steep sandstone mountains to the north, from the top of which a magnificent view of the valley and plain beyond was obtained, where the course of a large river called the Karnang was marked out by lines of Itah palms. Beyond lay some gloomy-looking, tree-clothed mountains bearing various names, foremost amongst which was one called Toobabouromé.

On arriving at the Karnang it was found to be in flood, and our Indians said that it was impossible to cross.

The usual fording was in some shallows at the head of a fall, thirty feet in height, but owing to the high

state of the river this was not practicable. I sent my men to look for a fording higher up, and after some delay they found a place where the river spread out to a width of 100 yards.

Stripping off all our clothing and carrying it in bundles on our heads, we waded over with great difficulty. One of my men assisted me in keeping my footing on the smooth slippery rocks, which formed the bottom in the deepest portion, where the water took me to my armpits. Where the water ran with its greatest force it was not more than waist deep. Then the men carried over their loads on their heads, in doing which William lost his footing and precipitated his pack into the stream.

We were all greatly amused with my captain, old Peterson, and the Tamarchelle chief, who were crossing at the same time. Peterson was not very steady on his pins in places of that sort, and fearing that he was going to be swept away, endeavoured, like a drowning man grasping at a straw, to seize the old Indian by the shoulder for support. To this the Indian objected, and exerted his greatest powers to elude the fatal grasp. With his palm-hat and war-club, he scuttled along sideways like a withered crab, while Peterson's long arms were waving about within a few inches of him. He, however, escaped and landed first midst shouts of laughter from the whole party. When Peterson gained the bank he appeared to be greatly annoyed, seeing nothing laughable in the affair.

That afternoon we turned aside from our line of march and visited the Ireng falls of Orindouie. These

consist of three steps of rocks, at intervals of 100 feet apart, constituting a height of fifty feet, over which the river thundered in sheets of white foam. We spent a night in some old banaboos built by Partamona Indians, who visit the falls for the purpose of collecting the aquatic plants, called Houyah, which they burn for the sake of its ash, which forms an ingredient in their mouth pellets. The water above the fall, at a height of only 1590 feet above the sea, was so cold that on bathing none of us cared to remain in it for any length of time.

The surrounding scenery was wild and beautiful. On distant ridges to the eastward I saw some Indian villages, the inhabitants of which, our Cumararing guide informed us, were turning white and in time would be white people.

From Orindouie we went north until we struck the Ireng again, at its junction with a small creek, in which the guide searched for, and found, a corial. In this we were all ferried in relays to the other side of the Ireng, and following a path leading along it, arrived in the afternoon at a small village near the edge of the forest. From the time of leaving the Rupununi until we reached this spot we had been travelling continuously through open grass-covered country, where trees in thin belts skirted the river's banks in places, or nestled in groves here and there on mountain sides, as well as formed what are called "Islands" on the level plains. But here we were at the southern edge of the great forest which spreads away northward continuously over mountain, vale, and plain.

We learned that from this on, for some distance,

there was no path, and that we should have to proceed up river in corials. We had to wait a day for the arrival of these, and when they came were much disappointed at their appearance, which more nearly resembled coffins than canoes. They were simply long logs of wood hollowed out and rounded at both ends, but not spread amidships. The measurements of one were as follows: length 33 feet, width 1 foot 9 inches, and depth 1 foot 2 inches.

At the village I saw an Indian from the Potaro, who had been at Enapowou village on the occasion of my visit to that place. The wife of this man had the most remarkable head of hair, for quantity and luxuriance of growth, that I have ever seen. It fell down her back the whole length of her body, and was cut off square at the end, giving a section at least a foot in width, and three inches in thickness.

When we were loading our canoes for a start, a number of Indians passed quickly up river, propelling their canoes up the shallows with long poles, not one turning his head to look at us. An old woman steering one, kept up a constant howling and wailing noise as they passed. We could not find out exactly the reason of this, but William said he believed that her husband had died while working at a wood-cutting grant on the Demerara river, and that the sight of our clothed party, resembling the people of that locality, had recalled to her memory the loss of her dear departed.

When we came to start, our canoes were so narrow and crank that three of them only just held my party of twelve individuals, with their loads; consequently

the old Tamarchelle chief was obliged to remain behind. As the men paddled them they rolled down to the water's edge, first on one side and then slowly back on the other, after the fashion of a long iron screw steamer in a cross sea. My position was not a comfortable one, for being obliged to sit as low as possible on three round sticks, I was doubled up, my knees and chin being in close proximity. Showers of rain fell repeatedly and did not add to the pleasure of my situation.

The river, swollen by recent rain, ran like a mill race, so that we could hardly make headway against it, and in one rapid ran great risk of an upset, which was just averted by the judicious action of one man. We passed many single Indian houses or clusters of houses, here and there, and got to a landing at a late hour, where some fifty people had collected to see us, having heard of our presence on the river. They were very light coloured, strong and well built, and of the Partamona tribe. Their village, called Waipah, was about half a mile back from the river, in the forest, where we spent the following day (Sunday, 29th January). They told the interpreter, William, it was currently reported amongst the surrounding inhabitants that now that a white man had come amongst them, their country would sink under water and other misfortunes would befall them. Geologists have shown that large areas of country are being depressed, but this is the first time that a geologist has been accused of being the cause of such a sinking process. They seemed rather downhearted about the expected loss of their country, so to cheer them up I

got the interpreter to tell them that nothing of the sort would follow our harmless visit; adding also that when they went to the Demerara to cut or haul timber, their presence there did not cause the land to subside, then why should a white man's travelling amongst them produce such bad effects? They admitted the force of my argument, but nevertheless remained of their own opinion.

They said they had heard of my being at Kaieteur fall; of my going under it and coming out "at the other side," which was really news to me.

During the day spent at Waipah, two parties of Indians arrived, one on their way from the Potaro to their homes near Roraima, the other going in the opposite direction. The latter party having heard of our existence, had come considerably out of their way to have a look at us. They stated that the Indian sorcerer who had drawn such numbers of people to his district at Wakopyeng, near Roraima, was then on his way to meet me.

Soon after leaving Waipah we came to large and swift-running rapids above two villages which it was impossible to pass with corials; we therefore followed a portage path, and leaving our crafts at their foot obtained others at a village at their head, in which we proceeded only a mile and a half before another set of rapids headed us off once more, obliging us to land and take shelter for the night at a small village.

Lying in my hammock that evening under the smoke-blackened roof of an Indian house I listened to the steady patter of the rain on the thatch, and its splashing drip from the low eaves to the ground, with

gloomy forebodings as to the next day's work. Cockroaches, as usual, rustled in and out amongst the dry leaves encasing the Indian's stores of corn and dried cassava on the sort of loft overhead, whilst now and then one of these insects would wing its flight from a dark corner and settle with a bang on my hammock. The dim little fires beneath the Indian's hammocks gave just enough light to reveal the gloomy nature of the abode.

The Indian men lay in their hammocks talking and smoking their bark cigarettes, while the women spun by hand, or manufactured their bead dresses, as the case might be. An old woman sat over a fire near the hammock of my guide, and in a dull, monotonous, whingy tone related a long story to him. As night comes on this whingy, complaining tone is always adopted in conversation by Indian women and children, and to a slight extent by the men, and is very curious. I got so tired of hearing the old woman's voice, that to try and break the spell I asked William, whose hammock hung close to mine, what in the name of goodness was the old woman talking about; he replied that she was relating how, not long before our visit, the people of her village, including herself, made a pilgrimage to see the sorcerer of Wakopyeng. That they were nearly starved to death owing to the great number of people there consuming all the food, and that after a lengthened stay they returned home to find their neglected fields contained but little cassava; so that now they were on short commons until what they had planted had time to grow. She also said that this sorcerer, amongst other

wonderful performances, could make himself invisible at times, and had a little bottle full of fire.

Many a night of this sort comes back to my memory as I pen these lines, and the recollection of them is, on the whole, despite the cockroaches, not an unpleasant one.

From this place we went on by a path close to the river, which led across branch creeks swollen with water, some of which we waded, while others we crossed on bridges made of single felled trees. Rain fell incessantly, and the trees through which we struggled were laden with raindrops. At times we had to cross mountain spurs with steep ascents and descents, so that on the whole the day's journey was not a pleasant one. In the afternoon we met an Indian with light hazel eyes, who, with two children, was fishing in a creek. He gave up his task and conducted us to his place in a large sandy fern opening, close to the river's edge, where we found two large houses containing fifty people, and remained for the night. Hearing that we were on the way up, these people had erected a small shed, and partially roofed it with palm leaves ready for my reception. As the weather was showery, and the shed roof small, I slung my hammock in one of the houses, but owing to the number of fires the heat and smoke soon became so unbearable that I had to bolt out and take refuge under the shed. When a rain-squall came on I had to take down my hammock and retire well under the little roof for shelter until it passed off, and on those occasions the night air, laden with mist, felt cold as I turned out of my cosy hammock.

Just after dark that evening I observed two little Indian boys emerge from the house with a firebrand, which they coolly, and I suppose thoughtlessly, stuck under the thick thatch of the eave of the house. The rain not having penetrated the thatch to any distance, it was as dry as tinder beneath, and soon caught fire. I called out to my men at once, who with some Indians ran to the river for water, with which they soon extinguished the flames. The Indians treated the matter very coolly, saying the children knew no better, but were only playing. If I had not seen the affair the whole house must have been consumed, and then perhaps they would have looked at it in a more serious light.

We went up stream next day in canoes, past two or three villages against a strong current, and landed near the junction of the Ireng with its large branch, the Suquadie river. From thence we ascended a hill and walked along a sandy level tract, 1962 feet above the sea, coming out on a little savanna at the head of a beautiful fall called Orindouie.

The measurements of this by barometer and line gave 213 feet as its total height, and 56 yards as its width.

Descending for a short distance along a slope, amongst tall agaves, high grass and mosses, and over blocks of rock on its eastern side, I had a good view of its front. All the surrounding mountains were tree-covered, and looked gloomy and wild.

Leaving this fall we crossed the little savanna, and passing through a village, descended in a corial to a twin fall of Wantuana and Wotowanda on the Su-

quadie river, one on either side of a large island. Upon some flat jasperous sandstone rocks exposed on the savanna were numerous curved figures of the sun, snakes, spirals, and circles, formed by Indians of a bygone time.

We breakfasted at the fall on cassava bread and some extract of meat, all our tinned meat and salt fish having been finished. Owing to the Ireng being in flood, its fish would not take the hook, and the Indians living on its banks at the time had little in their pepper-pots but calaloo leaves, water and peppers, wherewith to make their cassava bread palatable. Game being very scarce, owing I think to the number of inhabitants in the district, we could not obtain any meat food, but at the same time had ample supplies of rice and cassava.

Having arrived at the farthest attainable point on the Ireng we turned about on the afternoon of February 1st, and commenced our return journey in corials, being able, owing to the river having fallen so much, to pass the rapids without danger, and reached Waipah village on the following day. From that place I made a land journey to the Chemapeur river, and then descended the Ireng to the spot where we were ferried across the day after we left the first Orindouie fall. After passing the village of Uwahparadouie, where we obtained our corials, we left the wooded country with its deep shades behind, and ran merrily down river, between grass-covered mountains and large level tracks of open field-like country. The afternoon was fine and the sun shone brightly where we were, but on looking back to the

mountains we had left great masses of dark rain-clouds still hung over them.

We put up for the night in some large banaboos on the east bank of the river where we had just got settled, when a great halloing was heard, and a large party of Indians with a pack of dogs came down along the river's edge in pursuit of a tapir they had been after in the wooded country all day. They all appeared greatly excited, and said that it was a stray tapir which had recently come to the district. They were confident of success, but gave up the chase for a time to go back to the village for some food, stating that they would return and resume operations when the moon rose. About midnight I awoke, hearing great talking going on, and found that the tapir hunters had returned and were taking most of the corials we had come down in, which belonged to them.

Crossing the Ireng next day we plodded on to the Karnang, which we forded above the fall, owing to the river being much lower than when we visited it before. In traversing the Wailongteur valley I found two stone hatchets, amongst some rocks, and at the village, after crossing the river, obtained a very perfect one from the Indians.

At the village we procured some labba meat and a fowl, which was a great treat to us after our meatless diet of the last few days.

The night we spent at Cumararing was an extremely uncomfortable one, for at midnight rain began to fall heavily, and the small fringe of sun-shrivelled, temporary thatch, forming the roof of the house,

leaked like a sieve. Wakened by the dripping water, we at once took down our hammocks, and placing them close to the walls, where a little shelter could be obtained, squatted there for hours until the rain ceased. A more dejected, miserable-looking set of objects than we were, as we saw each other by the light of the Indians' fires, could not be imagined; some with heads tied up in handkerchiefs, nodding drowsily; some seeking consolation in a pipe; and others trying to pass the time in conversation. The clay floor of the house was soon reduced to a state of mud, which the men called by the negro term of "putta-putta." The rain continued next morning until we had cleared Cumararing pass, when nature putting on a drier aspect the sun burst out and soon dried our clothes.

When resting at breakfast time all hands were engaged fishing in the water-holes of a little stream amongst great boulders, and caught numbers of small fish (*Acara sp.*), which were at once roasted and eaten with great relish.

We left the Ireng that morning, and after a long day's tramp camped within a couple of miles of the Cotinga river, at a water-hole in the Cumparuyamo. In such a hot climate as that of Guiana a good walker will find that from twenty-five to thirty miles a day, over a comparatively level tract, is as much as he can accomplish without being completely knocked up. Owing to the roughness of the paths, together with the heat, the feet become tender and easily chafed, and when once chafed are with difficulty healed, unless a few days' rest can be obtained.

During my journeyings at this period I seldom

slept after three o'clock each morning, usually lying awake until daybreak, listening for the call of a little savanna hawk which, with extraordinary exactitude, heralded the coming morn. Its peculiar call somewhat resembling the sound produced when sharpening a saw, I named it the "saw-filer." When I heard the first call of one, I used to turn my eyes to the east, and in a minute or so would see the first red glow of morning spread upwards from the horizon. Then numbers of other birds would begin their morning songs, amongst which the sweet notes of the fly-catchers were very predominant.

A large hawk, called the Cowah, used to utter its cries of "cow-cow-cowah" just at sunset, and until a little after dark. The small toucans or bill-birds (*Rhamphastos vitellinus*) are also fond of uttering their yelping calls of an evening, or during the day on the approach of a shower. When doing so they bob their heads up and down in a most extraordinary manner, with their large bills pointed upwards.

At the village near the termination of our journey on the Ireng, we were joined by three Indians, who stuck to us like leeches, and made extra mouths to feed. We could not shake them off, and, to make matters worse, at Cumararing, were joined by four more, also bound to Tamarchelle. One man of the former party was the tallest Indian I ever met with in Guiana, measuring five feet nine inches in height.

From Cumparuyamo we entered the Cotinga valley, and then went by a different and shorter route across the mountains to Terchillewan, passing on the way through the ruins of Torong village.

That evening I strolled a little way from the village to a knoll to enjoy a quiet pipe, and observe the beautiful scene before me. On the little plateau, in front of the doors of the houses composing the village, sat the red-skinned inhabitants, chatting in groups, and forming an interesting sight. The last rays of the setting sun lit up the mountain tops with reddish-golden lights, while the shadows in the valley looked deep and gloomy. Soon the crimson flush in the west faded away, and the tropical night settled over all. To watch these quiet sunsets always afforded me the greatest delight, and were ever fresh and new, never losing in the least by repetition. The beauties of scenes, viewed in early morning and late evening time, will ever remain amongst my pleasant recollections of that sunny land.

Arriving next morning at Tamarchelle, we found the old chief with his war-club safe back in his dominions again. When I paid our guide and his companions for their faithful services, and "old war-club's" wife for having taken care of our extra stores left in her charge, a number of the people of the place demanded pay. As they had done nothing for me, I refused to comply with their modest request, upon which they became troublesome, and I had to place a guard over our stock of negotiæ.

On the morning of February 10th we left Wirina, landing in our corials, and descended the Cotinga river, running down small channels in many shallow cataracts in a most extraordinary manner, the corial I was in, a remarkably strong one, bumping frequently on the rocks.

At one place we saw a black tiger walking along the top of the high bank of the river. Remaining quiet for a short time, so that it would not observe us, we saw it saunter away inland. Landing at the foot of the cliff from which it had disappeared, I climbed up, gun in hand, with some difficulty, and not without some apprehension that it might show fight on my arrival at the top, where it would have me at a disadvantage. Raising my head slowly above the edge, I peered round amongst the grass, but could see nothing of it. I then gained the top, and, rising into a standing position, perceived it crouching in the grass, with its back towards me, not more than forty yards off. Creeping cautiously to within twenty yards I took aim, and sent a charge of BB-shot into its body behind the shoulder, whereupon it sprang convulsively upwards, and then falling forwards, expired after a few struggles.

It stood about two feet in height, and had a long body: none of my men had ever seen one of the kind before. Its head was of a brownish-gray colour, and its body clothed with black fur, scattered sparingly with white hairs. Its under parts were light black, with slight indications of barred markings; its tail gray and legs black.

In passing Warara-sararu ponds, we stopped for a short time to replenish our larder with ducks, and whilst there observed thirty wild cattle feeding at a distance. When we got some three hundred yards to leeward of them they observed us, and moved about uneasily. We then shouted to attract their attention, which it did with a vengeance, for they

all started at a run towards us, keeping close together, and wheeling into line came to a stand within about one hundred yards of us. Knowing that tame cattle are sometimes fierce when at large, we argued that wild cattle ought to be very much fiercer. We therefore deemed it prudent to tree at once, and, selecting the largest tree about, swung ourselves gracefully, but swiftly, into its branches. The herd, not seeming inclined to advance nearer, worked more to leeward to scent us. They were full-grown, well-conditioned animals, of uniform blackish-brown or light red colours. More than half of the lot were bulls, which tore up the ground with their fore hoofs in anything but a playful manner. I descended from my perch to get a nearer look at them, when a gust of wind bore down our scent to them, and in one instant they wheeled about in the greatest terror, making off at a pace that a savanna deer might envy. We could see more than a mile in the direction in which they went, to where a swell of land hid the country beyond, and this distance they cleared in an amazingly short space of time.

Arriving at the mouth of the Cotinga on the 14th of February, we again took advantage of the wind, and hoisting jurymasts and sails, scudded down river on our way to the Brazilian frontier, Fort of St. Joaquim, at the junction of the Takutu with the Rio Branco. When night overtook us we camped on a sand-beach within some twelve miles of the fort. After dark we heard the strokes of the paddles of a boat coming up river, the pullers of which were singing a Portuguese song. They landed below us

where the barking of dogs inland proclaimed the existence of an Indian village. From the savanna on the west came the pleasant sounds of the lowing of cattle borne on the slight evening breeze.

Early next forenoon we landed at the fort and were met by two Brazilian soldiers, one of whom escorted me through the entrance into the courtyard of the fort, and up a flight of steps to the verandah of a large tile-roofed house, where I was met by the Commandant, who shook me heartily by the hand. Wishing to explain the object of my visit, and not knowing a word of Portuguese, while the Commandant did not know any English, I called up one of my men (Johannes Cornelius) as interpreter. Johannes had learned a language called Nicariecaru from the Brazilians who live on the Essequebo in the vicinity of Yucurit island, and one of the soldiers also knew it. Telling him what I wished to say to the Commandant in English, he told it to the soldier in Nicariecaru, and the soldier passed it on in Portuguese; while the answer of course worked back in the reverse order. When we had exhausted the patience of our interpreters we dismissed them, and sat and smoked together for a time.

Soon after a happy thought seemed to strike the Commandant, Senhor Abreo, for he jumped up, and hastening into an inner apartment, returned with a pint bottle of Allsopp's India pale ale. Pouring its foaming contents into a tumbler, he handed it to me with a bow, and an expression of countenance that plainly said, this is the most graceful offering I can make you, Senhor Englishman—and it was, for had

not five months and ten days passed away since I had partaken of "the bitter?"

At 3 P.M. we dined, the Senhôra (Commandant Abreo's wife) presiding, with three of their four little children sitting at table. The repast was like a feast to me, served as it was on a table, with glasses, table-cloth, plates, &c.; and consisted of corned beef, fowls, and various preparations of farinha.

After dinner he had three horses saddled, one of which I mounted, and, accompanied by a soldier on another, took a long ride over the great grassy plain to the south. The third horse would let no one mount it; the two soldiers who tried to do so hardly reached the saddle before it threw them over its head.

In the plain through which we passed were large shallow ponds with rushes and lilies, tenanted by flocks of large white cranes and jabirus, as tame as common geese to us on horseback, allowing us to ride close to them without seeming the least disturbed. The water which lies over this plain for a part of the year produces fine grass for the eighty or ninety head of cattle kept in the vicinity for the use of the fort. Beyond the plain was ordinary elevated gravelly and sandy savanna, from the edge of which, looking across the marshy level, the old fort looked grim and lonely.

I enjoyed a good gallop homewards over ground as smooth as a carpet, although the high peaked Spanish saddle had its drawbacks, being hard and stony; while the lightest touch on the reins acted on the extra-ordinarily severe bit in my horse's mouth, bringing him instantly to a dead stand. When I got back to the fort my men mounted the horses one after the

other, to try a short ride, most of them never having ridden in their lives. One man had just mounted when he dropped the reins and begged the others to help him down, which they did, thinking that he was only frightened. He was immediately seized with a sort of sea-sickness, which turned into fever and headache, from which he did not recover for two days.

The fort, which is built of red sandstone on a low ridge, not much above the level of floods, has a large gateway in front, set back so as to be commanded from the battlements above. The walls are of considerable thickness, and the embrasures have been built in with masonry. There were five unmounted cannon lying about, one of which was of English manufacture, having a crown and the letters G.R. upon it. On either side of the gateway are guard houses occupied by the five soldiers who man the place, while the Commandant's house occupies the full width of the back of the fort. The whole place was in a most untidy dilapidated condition, pigs, dogs, and fowls roaming about everywhere.

There are three other old buildings along the river's edge, west of the fort, one being the remains of an old chapel, and the other two, houses of the burriqueiro or cattle minders. On the west bank of the Parima or Rio Branco is a government cattle farm or fasenda, called St. Bento, with 3000 head of cattle, while on the east bank of the Parima higher up lies the fasenda called St. Miguel. A large batelon or undecked craft, covered aft with a *toldo* of palm thatch, which was lying at the landing of St. Bento, is used for conveying

cattle down to Manãos, the capital of the province of Amazonas, at the mouth of the Rio Negro.

Small government steamers come up the Rio Branco to some rapids not far below the fort, and at the time of my visit one was expected daily with stores, and twenty soldiers to put the fort in thorough repair.

Two soldiers were on duty that night, pacing up and down the battlements, and calling out the hours. At 8 P.M. the guard turned out and sang the tattoo in a most extraordinary and unmilitary style. Next morning the Commandant presented us with two quarters of an ox just slaughtered, expressing his deep regret that he had nothing of greater value to offer as a parting gift, and begged me to accept his hospitality for another day. Thanking him most sincerely for his generous gift, and stating how impossible it was for me to accept his kind invitation, I bade adieu to him and his good Senhôra and departed on my journey.

The first night out on our return journey to Pirara landing, we dried our ox meat on a barbacue, and though thereby rendering it almost tasteless preserved it from speedy decay.

On the succeeding day, as we were cooking breakfast on the river's side, a soldier and a Macusi, both on horseback, rode up and inquired whether we had seen anything of three of the fort soldiers, who had deserted during the night; but on our answering in the negative they immediately rode away.

As we worked slowly up stream against the strong current and breeze, we frequently saw great numbers of large river turtle sunning themselves upon the low sand-banks at the water's edge, which scuttled rapidly

off and disappeared in the river at our approach. It was then their laying season, and all the sand-banks were full of their nests and eggs.

In a low band of trees on one part of the river's side, there was a band of red howling monkeys. How on earth they got from the great forests to this isolated position it is impossible to say, unless they had repeatedly crossed over large stretches of open savanna.

It was very pleasant of an evening, when camped on the vast sand-beaches of the Takutu, to watch the flocks of jabiru, negrocopes, white cranes, and ducks coming out to the river from the savanna ponds, where they had been feeding all day, to their roosting places in groves in the vicinity of the river.

When we arrived at the Ireng river mouth we hid one corial amongst the trees and continued our journey up that river in the other two. We spied some Indians on the opposite side who followed up the bank of the stream for some distance, and cutting across the bends, came out on the river's edge as we were passing. They said they were Arecunas from Roraima, on their way to the Rupununi, with cotton balls and blow-pipes for barter; and asked us to ferry them across as they had no other means of gaining the other side. This we did, and they went on their way without a word of thanks.

We arrived at the mouth of the Pirara river on the 22nd of February, and leaving our boats walked across to Pirara landing; from thence we descended the Rupununi in my boat to Karinambo village, where, on the 24th of the same month, I had the pleasure of

rejoining Mr. Pollard once more. I found him in most comfortable quarters, occupying the upper story of the stilted house, and on taking up my abode with him felt as if I had come home again. Those who have never roughed it in the wilds, cannot form any idea of the pleasures of mind attending the satisfactory completion of a portion of that roughing it, or of even then gaining a haven of temporary rest.

CHAPTER XII.

OVER THE TAKUTU SAVANNA.

At Karinambo — Walk to the Takutu — From the Takutu to Cursato — Ascent of Cursato Mountain — Chase Ant-bear — Pinniyettinow — From the Takutu to the Rupununi — Double Snipe — Cartunariba — Coolie — Down the Rupununi — Visit Chewow River — Leave Karinambo and descend Rupununi — Ascend Essequebo to Primos Inlet — Cross through Forest to Berbice River — Descend Essequebo to Penal Settlement.

WE were nine days at Karinambo, awaiting the arrival of the provision boat, "Ataraipu," which we expected on the 1st day of March at the latest, but which did not arrive until the morning of the 6th, owing to illness amongst the crew and an accident to my messenger, Cameron. This consisted of a severe wound in the sole of one of his feet, caused by treading upon a sting-ray, whilst wading in the water in hauling the boat up Twasinki Itaboo. These rays are large fish of the *Trygonidæ* family, and are armed with two bony processes or spines at the base of the tail, covered with a sort of slimy skin, and having serrated edges. One process is usually longer than the other, being from two to three inches in length, and lies flat upon the tail. When, however, anyone touches or treads upon the fish, it raises the spines and also strikes with the tail, producing a large jagged wound, which is attended with acute agony, not only in the part but over other portions of the body, lasting for hours.

The wound takes weeks to heal, and I believe the effects of the poison remain in the system for a considerable length of time.

The days spent at Karinambo passed slowly, but not unpleasantly, as many amusing incidents occurred to pass the time away. When Mr. Pollard and I took our afternoon bathe from a sand-beach near the landing, a huge cayman used invariably to swim slowly down stream until opposite us, when it closed in to the opposite shore and took up its station there to watch us. We used to swim and dive within forty yards of it, but it never made any attempt to come across and attack us. The little black flies that covered us as we emerged from the water, were far more to be dreaded than it was.

Near its station were some ferruginous rocks full of cavities under water, in which skin fish of irregular form took up their abode, and were easily shot with arrows. My men called them "old boots," from their resemblance in form to those articles, but not from any toughness of texture, for when boiled they were soft and gluey.

An Indian youth, called Maipourie, used to keep the one family of the village in fish, and every afternoon he was to be seen sauntering forth, bow and arrow in hand, to the river or neighbouring inlets, from which he returned at night laden with all sorts of fish. Another and smaller youth, who went by the name of Kanaima, had a trick of passing a string up his nose and bringing it out of his mouth. In most Indian houses pieces of thick roughly-plated fibre or cord, as thick as codline, and a yard in length, are

seen hanging up in the roof. These have all been used once in the way I have just described, that is, passed up through the nose of the owner of the house, and drawn out by the mouth, for the purpose of giving him good luck in hunting.

A white man, named Christy, passed up river one day with a Brazilian Indian, on his way to the abode of the latter, on the Rupununi, in the Canucu mountains. He stopped and had a chat with us, stating that he had come up to barter for hammocks. We asked for news of the French and Prussian war, when he said that "the French had driven the Prussians back from Paris to Metz." Doubtless he invented this piece of news at the moment, rather than give us none at all.

I used sometimes to watch the manœuvres of the larvæ of the ant-lion (*Myrmeleontidæ*), which form little conical pits in the sand and dust, on the floors of sheds or unused houses, by jerking out little showers of sand, as they work their bodies round and round in the bottoms of their pits. If an ant fell into the pits and tried to climb out, it was knocked back repeatedly by well-directed showers of sand, until it became exhausted, when the owner seized it in its long nippers, and there held it until it died. The rapidity with which they can work backwards in sand, and the way they feign death when caught, are very curious.

Early on the morning following the arrival of the provision boat, I sent it back to the Penal Settlement to be paid off, and then with Mr. Pollard went up to Pirara landing, to make a walking journey round the western end of the Canucu mountains and over the

Takutu savanna, intending, if possible, to descend the Rupununi through the Canucus. With eleven Indians from Carenacru, two of whom were women (wives of some of the men), and five of my own men, we journeyed across the savanna to Yarewah on the Takutu, where we met two of my men and three Indians, whom I had despatched to Pirara river to bring the corials we had used on the Cotinga, up to Yarewah to deliver them to their owner.

The women of our party, like all other Macusi females, had the usual pin ornament between the lower lip and chin. This consists of from one to three pins passed through a small hole in the lower lip with their points outwards and heads inside.

From Yarewah I sent Peterson and one man on to Fort St. Joaquim, with a present of brandy to the Commandant, and with the rest of the party, Mr. Pollard and I continued our journey. We made an attempt to ascend the Takutu in corials, but on going a mile or two, found it was so shallow and barred across with rocks, that we gave up the idea. Leaving Yarewah we made straight for the Canucu mountains, and on arriving near the foot of Mount Ilamikipang, we turned south-west, skirting their base past their south-western termination to some ponds, at which we camped. Some of our Indians went hunting that evening, and shot a fine Beyou deer, which was a very acceptable addition to our larder. Whilst hunting they started another deer, which cantered close past our camp, apparently without seeing us; but when it got well to leeward, and crossed our scent, it wheeled round, coming to a stand for an instant, like a pointer

when it strikes the scent of a snipe. It then evidently came to the conclusion that we were enemies, for wheeling round again it made off at full speed, and was soon lost to sight. It is well known that the beyou trust very little to their eyesight, depending almost entirely on the powers of their nasal organs for ascertaining the whereabouts and quality of their enemies.

We crossed the Suwaraowra river and came to a Wapisiana village called Berkutone, from which we went west to the Takutu, and spent a day in a corial, washing unsuccessfully, in likely-looking spots, for gold. At Berkutone we learned that the deserters from the fort had crossed the Takutu, and passed through that village on their way to the Rupununi. They had been followed by two men on horseback as far only as the banks of the Takutu.

From Berkutone we went on to Rumutokoke, where we spent a night. There the people had a tame jabiru, which stalked about in a most deliberate and stately way, as if every step it took was a matter of deep deliberation. In spite of its sage looks there was some grim fun in it, as it seemed to enjoy playing a practical joke now and then on the village dogs; for whenever it had a chance it stalked stealthily behind one and delivered a well-directed prod with its pointed beak, full on the dog's back, which caused the dog to fly and the old jabiru to "smile inwardly."

The water used by the villagers, as usual on many parts of the savanna, was obtained from holes dug in a boggy place, surrounded by trees; it was dirty-looking, but cool and good for drinking purposes.

In bathing at them we had to bail out water with a calabash, walk a little way off so that it might not run back, dash it over our bodies, and then return for more. Whilst bathing there a lot of very pretty birds collected in the surrounding trees in order to obtain their evening drink, one of which, a dark-coloured thrush, was exceedingly tame, drinking from a pool within a few yards of me.

Our course from Rumutokoke lay for a considerable distance in a southerly direction, over a dry sandy savanna, within a mile or two of the Takutu, and parallel to its course. After passing through three villages, our day's walk terminated at a fourth, called Dahdaad, close to Tatat hill. There was very little breeze during the day, and the afternoon's walk was hot and stifling. The house we put up in at Dahdaad was a large square mud-walled one, unlike the generality of Indian houses. The Takutu passed within a quarter of a mile of it, and was very low, its water covered with a slight scum, hardly showing any signs of running.

Next day we went easterly, coming to a large village, called Cocobeanaruwow, close to Cursato mountain. From it, in the afternoon, Mr. Pollard and I went with a guide and three of my men to Cursato. The path up the mountain was rough, steep, and rocky, and lying on its leeward portion was cut off from even the slightest indication of a breeze. The shrivelled leaves of the small trees with which it was clothed formed very little protection against the fierce rays of the afternoon sun, and consequently the heat was something fearful. Being

in good training, I determined to see what I could accomplish in the way of climbing under the above-mentioned trying circumstances, and with the naked guide in front started from the foot at a quick pace. When about three-quarters of the way up the guide, down whose back the perspiration was trickling in little rills, stopped and looked at me, as if to propose a rest. I anticipated this, and was ready with an answer in similar dumb show, for neither of us could understand the other's language. Waving my arms upwards I pointed towards the mountain's top, and started on. He responded manfully to my call, and on we went, but every now and then between his heavy breathing I heard a suppressed sigh.

The path did not lead straight up, but wound about considerably, and in one part led along a fern opening where there was no shelter. There I stopped for an instant to look down on the surrounding country, as well as to relieve two kinks in sinews above the top of each knee, induced by rapid and continuous climbing. On gaining the top we threw ourselves down on a small open grassy space, where a slight movement of the air felt delightfully refreshing, and gazed down on the splendid bird's-eye view to the southward, ranging from south-east to due west.

This presented to the eye a vast undulating open plain, stretching away southward in the far distance until it seemed to melt gradually into the hazy atmosphere. Lying out upon it were a few very singular isolated hills, not far from Cursato, which relieved the dead level of the foreground. In the

south-west, beyond the Takutu, were groups of high mountains just discernible in the distance. The light yellowish savanna, relieved here and there by the bright green of fresh springing grass; the dark green bands of trees lining the watercourses or grouped in groves on the hills in the foreground; the purplish cast of the rock exposures on the isolated hills; and the faint blue of the distant mountains, formed the various colourings of this splendid scene.

Dead stillness reigned around, and all bird and mammal life seemed to have hidden away from the burning sun. All nature was at rest and peace, and in this spot one felt as if it would be pleasant to dream away existence, free from the trials and cares of busy life.

On looking at my watch I found that we had come up in forty minutes, having ascended in that time a vertical space of 1060 feet. This would be nothing of a climb in a temperate climate, but is by no means an easy task in the torrid zone, within $2\frac{3}{4}^{\circ}$ of the equator.

After resting we went to an Indian house, on the edge of the forest which capped the extensive undulating top of the mountain, where we got some ripe bananas from a number of bunches hanging up to the roof. The guide went to a spring near by and procured some delicious water, which was very acceptable to our parched throats.

My three men arrived about a quarter of an hour after I did, and said they had left Mr. Pollard resting on the mountain's side. I sent one of them down to him with some water and bananas to freshen him up,

and after an hour's stay, during which he did not appear, I descended, overtaking him just as he arrived at the foot.

The following day being a Sunday, we remained at Cocobeanaruwow to rest, having a house assigned to us. Four Indians came in the afternoon with cassava and dried fish for us, who, being partially intoxicated with paiworie, made themselves disagreeable, so I had them told to leave the house. On finding out immediately after that one of them was the owner of the house, I sent for him, and got the interpreter to explain that it was quite through a mistake that he was turned out of his own house, and that, of course, he could come in and out as he liked.

In the houses of this village, as in most all the Indian houses on the savannas, were numbers of deers' antlers, with skulls attached, hung up to the centre pole or rafters, which are kept, I suppose, as trophies of the chase.

On leaving the village next morning we observed a large ant-bear crossing the plain about half a mile off. It could not go with any speed, but lumbered heavily along, even the little Indian boys being able to keep up with it. My men headed it off, and drove it up to the village, whilst Mr. Pollard and I stood looking on. It made straight for the nearest house, and bolted in at the only door of that edifice. No sooner had it disappeared within than out poured a lot of screaming women and children, mixed up with dogs and fowls, presenting a most laughable sight, and close on their heels came the affrighted creature. Away it went through the village, followed by a crowd of boys and

men, but before it got far it was knocked on the head with a stick and stretched senseless.

We took an easterly direction from the village over the savanna, midst clusters of hills, coming at the end of a day's tramp to a village called Pinniyettenow, about midway between the Takutu and Rupununi rivers.

During the day's walk we had fine views of the distant Canucu mountains to the north, and that singular three-peaked mountain, called Saeraerie, which from some points of view resembles a steamer under sail.

The worst feature in walking over the savannas is the manner in which the dry spiky seeds on the top of each grass stem work through one's trousers, and stick like needles into one's legs, where they produce such irritation, that no peace is got until they have been pulled out.

At Pinniyettenow we engaged a sturdy little Indian man as guide onwards, and a capital one he made. When we were on the point of starting, one Carenacru carrier, who had sprained his ankle, and limped along for several days, said he could go no farther, and at the same time five others announced their intention of returning to their homes. Having no means of making them go farther, we had their loads put up in one of the houses, and continued our journey without them. This was the first and only time, in all my walking journeys, that any Indians abandoned me in this manner.

We went southward past Pinniyette mountain and across the Macudood river, a branch of the Rupununi,

coming soon after to a branch of the Takutu, called Rhawow.

There we were shown a portage, a quarter of a mile in length, across which some Indians, during the last rainy season, had taken a large corial from the Takutu to the Rupununi.

That night we camped on the Mepitewow river, where, owing to the rain coming down in torrents about midnight, I was obliged to take down my hammock and sit till morning under the awning in which Mr. Pollard's hammock was slung. With the splash of the rain from the ground upon me, I spent a miserable and sleepless night. Most of the men and Indians got shelter under some low kennel-like huts near by.

Some frogs, probably of a tree variety, aroused from their torpid condition by the rain, and hailing its advent with joy, uttered their cries during the night and until early morn. They were the most musical frogs I have ever heard, and it was really pleasant to listen to their bell-like voices, uttering a call like the words "clong-clarng" lengthened out.

We reached the blackened remains of a burnt village, called Coarawow, with a charred cassava field, not far from the Takutu, some ten miles N.N.E. of Tuarutu mountains. Our guide, who seemed astonished at the desolate condition of the place, was at a loss to account for its destruction.

From this we went zig-zagging across the savanna to Cau-urua on the Rupununi, passing through two villages, and walking the greater part of the way without a path.

At pools in a river's bed, the men caught by hand and shot with arrows numbers of a small fish called Yarrow, which, in their endeavours to escape, wriggled over the pebbles lying between one pool and another, with great rapidity. A small crab, caught in one of these pools, had an immense number of minute, fully formed young adhering to its under part, between the base of the cephalo-thorax and abdomen, in the place in which they had been hatched from the ova.

In this portion of the journey I recognized with pleasure many distant landmarks on the Quitaro savanna, such as Tomboro, Carawaimintow, and other mountains that I had visited a year and a half previously.

Before reaching the site of the old village of Cau-urua, we camped close to a village where, during the night, a number of birds on the wing uttered a most peculiar call, resembling the words, "What a clock—what a clock." Before uttering their cries, they evidently swooped down from a considerable height in the air, as indicated by the rushing sound of their wings. My men said these birds were the large double snipe.

Amongst the groves of large Itah palms, which grow in swampy hollows all over the savannas, were flocks of the small green macaws, which wheel about, making fearful screeching noises. The beautiful little orange, red, and green parroquets, called kissi-kissi (*Conurus solstitialis*), are not seen in this part, but frequent the valleys of the Pacaraima mountains.

Whilst journeying from Cau-urua to mount Patti-ghetiku, I had a disagreeable touch of fever, which

made my walk very unpleasant. Late that afternoon, the guide pointed out a line of trees, about six miles off, marking the place where we would camp for the night; but feeling unequal to more walking in my feverish condition, I got him to take us to the Rupununi, which was about a mile and a half away, and there camped. Just as we were about to enter the belt of bush lining the river, we came suddenly upon two large deer which were feeding in some long grass, making eight seen that day.

From that camp we went in a westerly direction to Cartunariba village, the residence of an Atorai, named Robert, who spoke very fair English, and styled himself the "Captain of the Atorai nation." The village was close to Pinniyettenow, where we had left some of our stores, and where we now sought them, but found that one pack had been taken away by the party of Indians who had left us at that place. The Suwaraowra river lies close to Cartunariba, and at the time contained only one pool of milky water (near the village) of about fifty yards in length. From one end of this pool the Indians dipped water for drinking, using the other for bathing purposes. Captain Robert, strange to relate, possessed a fine Brazilian pony, and a high peak saddle and bridle, of which he seemed rather proud.

The day we spent at Cartunariba, two Indians came in who had escaped from a farm near Fort St. Joaquim, on which they were serving as cattle minders. They were both dressed in light-coloured clothes, and looked fat and well, though they said they had been badly treated. Fever of a malignant type was making

havoc in the village of Pinniyettenow, and that day a little boy died of it.

Mr. Pollard, who was not feeling well, owing to the bad quality of the water we had been drinking on the journey, thought it better to borrow the horse and ride the next day's journey to Daruwow. He stood the jolting pace of the horse, and the hard, uncomfortable saddle for about a mile, and then jumped off, preferring any amount of walking to that mode of progression.

On reaching Daruwow village we put up in a large house belonging to a young Atorai Indian, named Christian, who we found was another swell like Robert, wearing clothes, and also claiming to be the chief of the Atorai Indians by lineal descent. He was an Indian in ten thousand, for he had been sent by his father, the old original Atorai chief, to the Grove to school and afterwards to a school in Georgetown, where he had learnt to read, write, and cipher. He spoke English, I might almost say fluently, and asked me what was the news. The only other male occupant of the place was the East Indian Coolie I had seen before living with the Caribs at Itaballia. He was now acting the part of companion to Christian, and taking life easily, for, as he said, he had "plenty eat, plenty drink, no work."

A Creole trader from the coast, named John Bracey, had a residence in this village, but at the time was away from home, having gone down to the Grove with hammocks which he had purchased from the Indians, and taken most of the inhabitants of the place with him.

Next day we crossed the Rupununi, opposite the end of Tarucupani mountain, and entered the valley of that river where it passes through the Canucu mountains. Coming to a Wapisiana village called Cabarooda we inquired whether corials could be got to descend the Rupununi, and were told that they could, but that the river was then too shallow for the purpose. Visiting it we found it very shallow indeed, with bars of rock across it, and returned to the village for the night.

On the following day we got two corials from different villages and dragged one a short way over the rocks, losing half a day in so doing, when we found the river's channel beyond so insignificant, that we gave up the idea of trying to descend in that way. The Indians then informed us that if we walked down the river's bed to a creek, called Perapoko, we would find the river navigable from that on, and that there we could get corials. This seemed a feasible undertaking, and better than walking back round the western end of the Canucu mountains, so we started at noon to try the proposed route. At the convex sides of the river's bed, as it wound about, were extensive sand-beaches occupying its greater portion and in many instances its full width, the small body of running water finding its way by percolating beneath. We walked along these, and on coming to the end of one waded across to the commencement of another—sometimes with the water only to our ankles, at others with it to our knees. When a deep hole intervened we had to land and make our way, for some distance, through the dense foliage

of morass on the narrow level strip of alluvium forming the banks, at the foot of the high wooded mountains which bounded it on either side. The walking on the deep dry sand was most tiresome, whilst the heat of the sun's direct rays, added to the radiated heat from the sand, was almost insupportable. Four and a half hours of this weary plodding brought us to a sand-beach, at the end of a creek, beyond which there appeared to be deep water and no sand-beaches as far as we could see. We concluded that this was Perapoko creek, and therefore camped, after securing two small canoes which we found hauled up on a sand-beach.

On searching next morning we found a path which we followed through a heavy forest, coming in half an hour to a Macusi village, the owner of which led us by another path to a landing farther down river, and provided us with some small wretched old corials. These, together with the two we got at the creek mouth, held all our party, and onwards we went rejoicing. During the whole of that day's journey and part of the next we found the river very shallow, and often had to drag the corials over places where there was only a depth of two or three inches of water.

In the afternoon of the day we left Perapoko, on approaching a village on the river's bank, we saw a white man standing at the water's edge, who we found, on landing, was the man Christy, that had come up to try his hand at trading with Indians. He told me he was living on farinha, left there by the Brazilian Indian who had brought him up, and had nothing else to eat. Thinking under the cir-

cumstances he would be anxious to get away, I offered him a passage down in my boat, which, however, he refused. I told him that I would leave him some salt fish and biscuit at Karinambo, and on his sending down he would find it stowed away at that place.

After passing the mouth of the Mapari river, where the Rupununi receives a large accession of water, we had no more difficulties in the way of shallows. We, however, suffered considerable inconvenience from the heavy rain which constantly fell, and were obliged to make leaky substitutes for umbrellas with a few Urua palm leaves.

A little beyond its junction with the Mapari, the Rupununi leaves the Canucu mountains, flowing first through a wooded and afterwards an open plain.

In running down the small rapids of Urua, one of our corials containing five Macusis and their loads, was upset through the mismanagement of the two Indians, who acted as bowman and steersman. In this rapid there are two channels with two steps each; whilst running down the first step, those having control of the boat had their choice of continuing straight on in one channel over the second step, or of turning off at right angles and passing over the second step in the other channel. The Indians did not agree upon a joint course of action upon arriving at the head of the rapid, as they should have done, but on reaching the second step the steersman endeavoured to turn the corial off at right angles, while the bowman kept its bow up for the straight run. Thus the corial was swept broadside on to the second step, upset, and rolled over and over down it like a barrel. Mr.

Pollard and I had run down in safety and awaited the coming of the other canoes in the pool below, never expecting to see one come down in the manner I have related, and then drift slowly away in the pool, bottom upwards, with three Indians clinging to it, and two others swimming for the shore.

We all paddled to the spot to rescue those on the boat's bottom, whilst my men dived in the deep pool for the sunken materials. The Indians seemed to have lost all presence of mind, and gazed stupidly on, never attempting to assist in the search. After some time occupied in diving, all the missing things, with the exception of a saucepan and a load of cassava, were secured. Amongst the things recovered was a gun, which being swept by the strong current down the smooth rocks of the pool's bottom, was found some distance below the spot. Getting the corial to rights, we continued our journey and reached Pirara landing that evening.

After a short journey from that place to the Chewow river, near the Ireng—made for the purpose of examining the salt incrustations on the savanna, from which the Indians manufacture an impure salt—we continued our journey to Karinambo. There I found Peterson, who had returned from the fort, whither I had sent him from Ẏarewah, bringing me a letter of thanks, in Portuguese, from the Commandant, and a present of a parrot from the Senhôra.

I paid off all our Indians, with the exception of faithful Cowarie and Sarquah, who remained with me, and delivered our Perapoko corials up to the Indians who came for them.

On Saturday, April 8th, with regret I bade adieu

for ever to old Karinambo and the pleasant savanna country. The Indian family, who remained at Karinambo during the time our stores were left there, were to leave soon after us to take up their residence at Simoni, so the old village would be deserted. A year or two will suffice to hasten the decay that has already commenced in the remaining houses, when they will fall, or perhaps be burnt by a savanna fire, leaving few traces of the village behind. I had frequently watched the moon rise over the great plain to the east, casting its pale light over this little village, with its happy Indian inhabitants, and my band of men, filling it with life and good cheer; but now, it was sad to reflect that the next and subsequent full moons would lighten up only the deserted houses, and then after a time nothing but their ruins.

Running down the Rupununi, we arrived at Apoterie on the Essequebo, where we were welcomed by our Carib friends; then proceeding up that river to Primos inlet, we cut our way through the forest to the Berbice river. In olden times there was an Indian path across, of which not a vestige remained; we therefore steered by compass, marking our track with the cutlass, and performed the distance from river to river in eight hours. At this period the long rainy season had thoroughly set in, so that from the time of our leaving Karinambo until the conclusion of our journey, we had almost constant showers of rain, day and night, with but few lucid intervals of sunshine. Our walk, therefore, through swamps and across streams, amongst wet undergrowth and dripping trees, was anything but pleasant.

In crossing one small stream the men obtained a

number of small fish called daree, by catching them in their hands after they had maimed them with the cutlass. These fish were to be seen darting in shoals up the stream, or in little parties of eight or ten nestling together, with their backs above water, in shallow places on beds of decayed leaves, where they were spawning, having taken advantage of the flooded state of the stream to force themselves far up it.

The Berbice, where we struck it, was between thirty and forty yards wide, running swiftly, being swollen by the rains. The moment we came upon its edge a cayman uttered its bellowing snort, and came swimming rapidly down river to have a look at us. My men answered it in cayman fashion, which seemed to enrage it considerably, and on arriving opposite us it headed up stream, coming to a stop within twenty yards of us. Then it closed in to the bank under a tree, where it remained with its cruel-looking eyes fixed upon us. Having no means of dislodging it, we were obliged to bathe upon some rocks, which were a foot or two under water, within ten yards of it, one of us keeping an eye upon it while the other dipped, in case it should dive and make a rush at our legs. I must confess that taking a bath under the circumstances was rather risky, for if we had slipped off the rock we should have been in the cayman's clutches in a moment. Of course we were quite prepared to pop out of the water if it only winked an eye, but it never stirred.

Our camp was enlivened during the evening and night by the bellowing of all kinds of frogs in the surrounding swamps. Amongst these I distinguished

frog voices that I had never heard before, one resembling the shouting of a human being, and the other the rapid revolution of the wheels of a clock.

Cutting down some trees on the river's edge, we marked the spot in order that it might be easily recognized when I ascended this river from its mouth, and then returned to the Essequebo, accomplishing the distance from river to river in the space of five hours and a half. We continued our homeward journey down the Essequebo until we reached the vicinity of Maccari mountain, where we landed, and cutting our way through the forest to its foot, ascended to its summit. Owing to the precipitous nature of its sides and the thickness of the undergrowth all the way from the river's edge, this was a difficult task.

A sharp-leaved species of *Bromelia*, growing thickly on the level, was most difficult to pass, and a path had to be cut through it with cutlasses. In performing this task the leading man narrowly escaped being bitten by a large poisonous labaria snake, which was coiled up in a bed of leaves. Another man was nearly struck by a huge dry limb of a tree, thrown down by a member of a gang of quata monkeys. These monkeys also acted in such an offensive manner towards us, that we were obliged to rid ourselves of their company by sending a shot or two amongst them.

We gained the top by clambering up gullies in some places and along narrow ledges in the sandstone rock in others, having frequently during the ascent to cling to tree-roots for support. From the top we had a splendid view of the surrounding forest-covered

country, and of the range of mountains from Makarapan to the Essequebo. Being all dreadfully thirsty from our climb we made a search for water, and finding a patch of saturated moss on the face of a cliff, where water oozed out of some beds of sandstone, we were obliged to quench our thirst by squeezing the moisture from handfuls of moss into our mouths, at the risk of swallowing all sorts of minute insects.

When we arrived at Comuti mountain, we ascended it in the afternoon for the purpose of taking some observations. From its summit near the great Comuti rock, looking out over the river's valley, at the clusters of mountains beyond, we witnessed the approach of a heavy rain-storm. Low clouds, as black as night, advanced rapidly from the eastward, from which fell torrents of rain upon the already soddened earth, whilst the sun shone brightly in front of the dark scud. Gusts of wind soon ruffled the calm surface of the river down in the valley beneath our feet, and hummed ominously through the tree tops around, bringing with it the subdued roar of the storm of rain on the forest leaves. Gradually the rain-cloud swept down upon us, enveloping the whole scene in an inky pall, having almost the darkness of night. Under large palm leaves, that we had cut and lashed in groups to tree stems, we got some shelter till the storm passed on.

Then the scene before us changed, and in place of the angry-looking black scud, a low layer of white fleecy-looking mist moved rapidly before the wind, broken up into patches, between which the forest looked clean and refreshed by its bath. This soon

passed off, leaving only those curious patches of white mist, which rest over various parts of a forest-covered country for a considerable time after a rain-storm has passed over it, especially in the hollows on mountain sides. After hanging for a time over one spot, one of these clouds will rise swiftly up with a swirling motion, like the smoke rising from a fire, and then completely vanish in the air.

The rain-storm having delayed our movements, we were obliged to return to our boats for the night, and re-ascend the mountain on the following morning. What a different scene met our gaze from its top, at that early hour, to what we had witnessed on the previous day. Now, the whole face of the country below us, away out to the horizon eastward, was covered with a sheet of mist, which, lit up by the sun's rays, resembled a sea of molten silver. We traversed this table-topped mountain westward for a considerable distance, and then returning to our boats resumed our homeward journey.

On the mountain's top we saw a number of the large, black, poisonous Monoorie ants, the sting of which is very dangerous, producing most serious effects on some constitutions. One of my men told me that he nearly died from the stings given by three of these insects.

Not finding water on the mountain, we had to resort to that method of quenching thirst which is oftener spoken of than accomplished. I refer to the custom of procuring water from a vine called the Water-with (*Vitis sp.*). My men sought for and found a number of these vines, which had wound themselves

round the stems of large trees. Cutting them off as high as they could reach, they severed them quickly lower down, obtaining portions of stems some five feet in length, and from three to six inches in diameter. Holding these vertically, the sap, which appeared to be nothing but pure, clear, cool water, ran quickly out, and was caught in a cup and drank. From one length of the largest size we obtained at least a pint of water.

When we reached that portion of the Essequebo where it approaches nearest to the Demerara river, at a place called Cumparu, we crossed over to the latter, following a well-beaten Indian path. About three-fourths of the way across we emerged from the forest upon an open, sandy tract, covered here and there with shrubs, ferns, and coarse grasses, and having numbers of blackened dead tree-stems, either standing or prostrate, which showed plainly that it had originally been covered with forest. A great fire, many years ago, in some particularly dry season, swept through it, devouring the forest, and leaving only those blackened stems remaining. The forests in this country are not, as a rule, at all liable to ravages by fire, owing to their dense foliage keeping their stems moist, and to the trees forming them being of an incombustible nature.

We came out on the Demerara at an old deserted wood-cutting grant, where we spent the night, and returned to the Essequebo next day, accomplishing the distance from river to river in four hours. The weather at the time was execrable, constant rain being the order of both day and night; in fact we had but little fine weather after our homeward journey commenced.

Just before reaching our boats on the Essequebo, I started three abouyah on the path; firing at one I was lucky enough to bowl over two with the one charge.

As our voyage drew to a close we all looked forward with pleasure to our speedy return to civilization.

We reached the Penal Settlement two days after leaving Cumparu path end, and finally arrived at Georgetown on the 4th day of May, where we were welcomed back by many kind friends.

CHAPTER XIII.

ON THE CORENTYNE.

Journey to Skeldon — Oreala — Description of Journey on the Corentyne — Discovery of New River — Jaguars and Pumas — Mode of hunting them with Dogs — Scarcity of Indians — Game — Perai — Haimara Sting-Rays — Trees in Flower — Monkeys breaking Brazil Nuts — Mosquito Worms — Fraternity of Wasps, Ants, and Mocking Birds — Attack on Tamrian Ants by Ecitons — Return to Skeldon.

AFTER the long rainy season of 1871 had passed away, I made arrangements for a journey up the Corentyne river to its source, and having sent my men, boats, and stores by a schooner to Skeldon, at the mouth of that river, I left Georgetown on the 30th of August. Travelling down the coast eastward, first by railway and then by mail cart, I arrived at New Amsterdam, the capital of the county of Berbice, and from thence was driven to Skeldon by my friend and companion at Kaieteur, Mr. King.

At Skeldon I was joined by the Rev. W. Veness, who, wishing to visit his Mission station at Oreala, some sixty miles up river, took the offer of a seat in my boat, and accompanied me to that place, where we occupied quarters in the schoolroom for a day.

The Mission is situated on a low strip of alluvium at the foot of sloping wooded cliffs, which, extending along the river's edge lower down, become almost perpendicular, and lose their forest covering. These cliffs,

composed of red and white clays and sands, are about sixty-five feet in height. From their top, stretching back for a mile or two, is a small open tract of grass-covered country or savanna, with the characteristic foliage of such regions. The residences of the Indians are poorly built and dirty looking; but the members of the Arowaak, Warrow, and Carib tribes inhabiting them, were clean and dressed in civilized costumes.

Leaving Oreala, accompanied by Mr. Veness, I proceeded up river, and passing Siparuta cliffs, arrived at an Arowaak village, called Apura, on the Dutch side of the river, where we spent the night. This was our last night under a roof for a period of four months' duration, and, strange to say, at the end of that time this same roof was the first to give us shelter.

Just before dusk immense numbers of parrots, of the kind called "Screechers" (*Psittacus aestivus*), flew over us, making for Parua island, where they settled on low trees. They appeared to be in a most excited condition, constantly screeching and rising up in hundreds over the trees, where they hovered and resettled at intervals, until night closed in and put a stop to their flittings. Next morning, as we were passing the island, they were making as much noise as on the previous night, and, leaving in gangs every now and then, flew back in the direction of the coast to their feeding grounds for the day.

A short distance above Tomatai Mr. Veness left me, to return in his corial to Oreala, and I was once more without a companion.

The travelling on this river was in every way so similar to that experienced on former journeys, that it

would only be a tiresome repetition of what has been before recorded were I to give an account of our labours amongst countless cataracts, our anxieties and fatigues. I will therefore confine myself to an outline of the journey, only recording any incidents that are worth relating.

On the seventh day after leaving Oreala we passed up the first set of cataracts, and on the eighth arrived at the foot of a great cataract, called Wonotobo. There we were engaged for five days in cutting a portage path, three-quarters of a mile in length, and conveying our boats and stores along it to the head of the fall, at a level of 90 feet above its foot. From that on, for a period of eight and a half days, until we arrived at a fall called King Frederick William IV., we were combating with cataracts, many of which were of considerable size. We were detained six days at this latter fall, in making a portage three-quarters of a mile in length, and getting stores and one boat over; then we formed a rendezvous camp on an island immediately above it. Sending back the other boat to Oreala to bring up a supply of stores that were to be sent from Berbice, I went on with one boat, intending to explore the main Corentyne; but, taking channels along the western side of the river, amongst a confusing array of islands of all sizes, discovered a river hitherto unknown. This we followed up for three weeks, until, on the 25th of October, we came to huge granite rocks, which, lying close together, formed a barrier to our farther progress. We could of course have gone on with some little difficulty; but as we had traced the river up to the boundary of Brazil, to a

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WONOTOBO MIDDLE FALL

part where it was only twenty-four yards wide and very shallow, and where trees had in places fallen across it, I considered it advisable not to follow it farther. We were at a distance of 470 miles from the mouth of the Corentyne, and 670 feet above the level of the sea.

Leaving our boat in charge of two men, I made a journey across to the Essequebo river and back through the densest forest I ever traversed; and which, owing to our having misjudged the difficulties of the undertaking, occupied us twelve and a half days. Not having taken sufficient provisions at first, we were obliged, when halfway across, to return to our boat for more, and thus experienced considerable delay.

We then descended the New River, as I have called it, to our rendezvous island, where we found our boat's crew with the stores they had brought up. With both boats we ascended the Corentyne, and, keeping along its eastern side, followed what Schomburgk considered to be the main river, as far up as it was possible to go, where numerous large fallen trees lying across the stream had to be cut through to allow our boats to pass, to a place some eight or ten miles above the site of the old Drio Indian village, from which Schomburgk embarked on the occasion of his memorable and hazardous descent of this river in the year 1843. We had thus traced up the Corentyne to where it was only twenty yards wide, at a distance of 475 miles, by its windings, from its mouth, and at an altitude of 700 feet above the level of the sea.

We then returned to a branch called the Aramatau, and ascended it for a couple of days; and finally

descended the Corentyne to a place above Wonotobo falls, where a path once led across to the Berbice river. Not a sign of this path remained, so we cut our way through the forest to that river, an operation which occupied us three and a half days; while in returning we accomplished the distance from river to river in eight and a half hours.

We then descended the Corentyne, arriving at Oreala on the 18th of January, 1872.

When we commenced our descent of the New River on the 9th of November, the short rainy season had set in, and from that time until our return to Skeldon we experienced very wet weather, with lucid intervals of sunshine now and then. I had left my boat's tent at the foot of the Wonotobo fall, and during this rainy period had only the slight protection afforded by an umbrella.

During our journey up and down the Cutari and Aramatau rivers, the rain fell incessantly, causing their waters to rise to overflowing. Our labours upon them were exceedingly arduous, the fallen trees lying across them being very numerous, and giving the men constant and difficult axe work. Those trees that were half immersed were the most difficult to sever, the force of the blow of the axe being lessened considerably by its passage through the water. They were invariably of the hardest and toughest wood, and some I measured were two feet nine inches in diameter.

We had many close shaves in running down steep and dangerous cataracts, owing to my bowman not working with much skill—in fact he seemed to get

nervous as we approached a cataract, and lose all command over himself. My former bowman, Johannes Cornelius, was, during this and subsequent journeys, captain of my boat, in place of Peterson, who had become rather weak in the arms for such difficult work, though none knew how to steer in a cataract better than he did.

In ascending the portion of the Corentyne below Tehmeri rocks we saw a large jaguar standing on a granite rock, close to the river's bank, which immediately bolted into the forest as we paddled to the spot. Glancing up at the place at which it had disappeared I saw it sitting down gazing intently at us, without showing the least signs of fear. I took aim behind its shoulder and gave it a charge of large shot, which caused it to bound forwards, fall, and roll over. But, immediately regaining its feet, it made off into the forest. We landed and tracked it through the forest by the blood drops on the leaves for a quarter of a mile, and then lost all further trace; but there was little doubt that it was badly wounded and would probably die. With a dog to track it out, it would most assuredly have been found.

During different periods of our journey on four other occasions I obtained shots at jaguars, and was equally unfortunate in every instance. Of these two were wounded, and two were missed completely, for which I cannot account, unless it was my over anxiety to slay that made my aim uncertain. There is no doubt that the tenacity of life in these animals is very great, and that, even when severely wounded, they can run a long distance before finally succumbing.

In all but one instance my shots were fired from the boat, the unsteady movement of which would no doubt spoil the aim in some degree.

The second jaguar we met with was lying upon a flat rock sunning itself, and allowed us to paddle up to within thirty yards of it—close enough to see it scan us with a puzzled but by no means timid look, as it wondered what manner of animals we were. We could see it shake its ears to drive off the flies which settled upon them. It was an exciting moment to me as I covered it with my breechloader, then charged with a bullet cartridge, and drew the trigger, expecting fully to see it stiffen out in death; but simultaneously with the sound of the report, it bounded into the forest and was gone. We traced it for about one hundred yards by the blood which must have flowed from a serious wound, and then lost all further signs of the animal.

The third was lying full length on a sloping log, one end of which rested on the bank, the other in the water. We were coming down stream at the time, so we swung the boat round when opposite it, not more than ten yards off. As we approached it worked its claws on the log, after the manner of cats, but never moved its body. I thought to myself that, if wounded, it must fall into the water and be there despatched; but such was not the case, for at the report it jumped round with surprising agility and ran up the log into the forest.

The fourth jaguar which I fired at was badly wounded, and on the rock where it had stood we picked up a bunch of fur, with the outer coat of one of

its claws, which, in the scramble it made when struck, had been broken off on the rough surface of the rock. In tracing it a short distance by the blood, we came upon an enormous toad, fully a foot in length.

My last shot at a jaguar was obtained in the forest, and was equally unsuccessful. One of the men happened to go a few yards behind one of our camping places, when he heard a movement behind him; turning round he saw a jaguar leisurely surveying him. He fled to camp with his story, and I went in search of the animal, accompanied by one man armed with a cutlass. We did not go far before we saw its tracks in the sandy bed of a dry watercourse, and concluded that it had gone off. We gave up all hopes of seeing it, and, turning round, were on the point of making our way back to camp, when my companion suddenly exclaimed, "Look! look! the tiger!" Glancing at the spot indicated I saw it crouching in a thicket with its head bent down, its body swaying from side to side, glaring at us with eyes of a greenish metallic hue. The brute had evidently been following us whilst we were searching for it, and was working itself into a rage. I took as good aim at its head as I could, and fired; but instead of seeing it lying dead, I heard it bounding and crashing through the forest at a fearful pace.

One of my men got a shot at a jaguar on a sand beach, where it passed within twenty feet of him, as he crouched on some rocks. The only effect the shot had on the animal was to make it gallop away a few yards, then turn for an instant and look at him. The men whom I left in charge of the boat on the New

River, cut open a hollow log containing young accouries, and took them out. Their squeals on being seized attracted a puma, which ran close up to the men, apparently wishing to get the accouries, when one of them fired at it and it made off.

One evening, whilst returning to camp along the portage path that we were cutting at Wonobobo falls, I walked faster than the men, and got some two hundred yards in advance. As I rose the slope of an uneven piece of ground, I saw a large puma (*Felis concolor*) advancing along the other side of the rise towards me, with its nose down on the ground. The moment I saw it I stopped; and at the same instant it tossed up its head and seeing me also came to a stand. With its body half crouched, its head erect, and its eyes round and black, from its pupils having expanded in the dusky light, it looked at once a noble and an appalling sight. I glanced back along our wide path to see if any of my men were coming, as at the moment I felt that it was not well to be alone without some weapon of defence, and I knew that one of them had a gun; but nothing could I see. As long as I did not move the puma remained motionless also, and thus we stood, some fifteen yards apart, eyeing one another curiously. I had heard that the human voice is potent in scaring most wild beasts, and feeling that the time had arrived to do something desperate, I waved my arms in the air and shouted loudly. The effect on the tiger was electrical; it turned quickly on one side, and in two bounds was lost in the forest. I waited until my men came up, however, before passing the place at which it dis-

appeared, in case it might only be lying in ambush there; but we saw nothing more of it.

When returning down the portage and dragging our boats over, we saw a jaguar sitting on a log near the same spot, watching our movements with evident curiosity, and although the men were singing as they hauled the boats along, it did not seem to mind the noise. As soon as it saw that it was observed, it jumped off the log, and with a low growl made off. From this I infer that the flight of my puma must have been owing more to the windmill-like motion of my arms than to my voice.

During our journey across from the New River to the Essequebo, we were cooking breakfast one morning, when we heard a tremendous rushing and crashing noise coming towards us through the forest, and then caught a glimpse of an accourie flying for dear life before a black tiger. Just after they passed the accourie gave a heartrending scream as the tiger seized it, but on my men rushing up to the spot, the tiger left its prey and fled. When picked up the accourie was quite dead, but on examination showed no marks whatever of the tiger's teeth. The tiger had evidently killed it by springing upon it with its legs close together, the weight of its body giving such a blow, that the accourie's life was fairly knocked out. The men found its dead body just beyond a large log, slightly raised from the ground, under which it had bolted and lost some headway, while the cunning tiger took the log in its stride and so came, as it intended, on the poor accourie's back, with the result we have seen.

On returning to the head of the New River for provisions, we were followed for many miles by a tiger, for on going back we saw its huge tracks in the swampy places on our path.

With good hunting dogs fine jaguar and puma hunting might be obtained on the banks of this river, where without doubt they are exceedingly numerous. Many of the Indian hunting dogs trained for deer or tapir will hunt tigers. When on the track of either of those animals, should they come across the scent of a tiger, their eager and confident manner of pressing on after the game is immediately changed, and with the hair on their backs erect they become cautious and nervous to a degree, jumping at even the snapping of a twig. Abandoning the hunt they take up the tiger's track and follow it. But should the huntsman call them from it, or not cheer them on with his voice from time to time, they exhibit great fear, and keeping close to his heels cannot be induced to hunt any more in that district for the day. On the contrary, if allowed to follow the tiger, they track it up with caution, being fully aware of the cunning dodge practised by that animal; which is, when the dog is close at hand, to spring to one side and lie in ambush until it passes, when with one spring the dog is seized. Ordinary dogs would fall a prey to this trap, but not the self-taught tiger dogs. Their fine powers of scent warn them of their near approach to the quarry, when they advance with great caution, never failing to detect the tiger in time, and when once their eye is upon their enemy it has no chance of escape. In its pride of strength, the jaguar scorns the dogs, and with

a rush like a ball from a cannon springs madly at one of them, feeling sure that it cannot escape. It has reckoned, however, without its host, for the dog eludes the spring with ease, and with great quickness flies on the tiger's flank, giving it a severe nip. As the tiger turns with a growl of pain and disappointment, the dog is off to a little distance, yelping lustily and never remaining still an instant, but darting first on one side and then on the other. After one or two ineffectual charges the tiger gives it up, and on the approach of the hunter springs into the nearest suitable tree, which it seldom leaves alive.

According to the Indians there are various kinds of tigers and tiger cats, each of which hunts one kind of animal in particular, the call of which it can imitate. Thus there is the deer, tapir, abouyah, and kieroonie tiger, &c. The deer tiger is the puma, and I have heard it affirmed that Indians have been deceived by the manner in which it imitates the bleating of the forest deer. The wailah or tapir tiger is pure black, and is said to be of great size.

The tameness of jaguars and pumas on this river is owing to the almost entire absence of human beings in this part of the country, for along its winding course from the fifth to the third parallel of latitude, on the main Corentyne, there are no Indians now living; nor do any Indians travel over the portion included between King Frederick William IV. cataract, and Wonotobo. The New River also is entirely destitute of human inhabitants.

From the last outlying Indian settlement in the tidal portion of the Corentyne until we came to that

portion of river lying midway between the mouths of its branches, the Pani and Sipariwini, we never met with any signs of Indians. Near the latter branch, however, we saw two landing places, and paths leading inland, one on each side of the river. From that on the west bank, ten minutes' walk brought us to a village of three houses in a clearing in the forest. Judging from the appearance of the weeds which had sprung up around the houses, we concluded that their owners had gone away some two months previously; and, from the fact that they had left all their large earthen cooking pots, two bows, and three cutlasses, we concluded that they were only temporarily absent, on a visit perhaps to some neighbouring place. Two of the cutlasses were of Dutch, the third of English manufacture. In the clearing grew plantains, cashew, cassava, and sugar-cane.

The path on the east bank, which we followed for a quarter of a mile, was evidently a track leading across to some of the large rivers of Surinam.

At a creek mouth not far south of this we saw an old encampment and a large felled locust tree stripped of its bark, from which a woodskin had been made. Above the village we also met with an encampment which had been used not more than two weeks previously, and at the spot a woodskin had also been made from a large purple-heart tree.

On hauling up Sir W. Raleigh's cataract we found a woodskin tied to a tree on the edge of an island, in which were three paddles, the string by which a dog had been tied, and on the land close by some ripe plantains and an earthen pot. It was evident that

the owners of this canoe had been taking it over the cataract when we arrived at its foot, and becoming alarmed at the sight of our large party, had fled. In returning we looked in the same place, and found that the canoe, plantains, and pot had been taken away.

We saw the posts of the houses of the old Drio village, on the Cutari river, at the point from which Schomburgk embarked when he descended the Corentyne.

Some very curious and gigantic specimens of Indian picture-writing were seen on rocks in portions of the river, from Tehmeri to the mouth of the New river. In two places also, in the forest, were the sites of ancient villages, marked by a deep black soil mixed with broken pottery.

Bush-hogs, deer, capybara, tapirs, and all manner of animals before met with were abundant in the forests bordering this river. Of the first mentioned we killed a large number for our larder, living chiefly on them for a length of time.

The Corentyne and its branches were literally teeming with fish of various kinds, the greater number being Haimara and Perai. The latter were so abundant and ferocious that at times it was dangerous, when bathing, to go into the water to a greater depth than up to one's knees. Even then small bodies of these hungry creatures would swim in and make a dash close up to our legs, and then retreat to a short distance. They actually bit the steering paddles as they were drawn through the water astern of the boats. A tapir which I shot swimming across the

river had its nose eaten off by them whilst we were towing it to the shore.

Of an evening the men used to catch some of them for sport, and in taking the hook from their mouths produce a wound from which the blood ran freely. On throwing them back into the water in this injured condition they were immediately set upon and devoured by their companions. Even as one was being hauled in on the line, its comrades, seeing that it was in difficulties, attacked it at once. One day, when the boat was hauled in to some rocks, a few of the men were engaged shooting fish near by, and in so doing wounded a large haimara. Having escaped from its human tormentors, it made for the open river, but was instantly attacked by perai attracted by the blood escaping from its wound, and was driven back to the shelter of the rocks close to the boat, from which I had a good view of the chase. The large fish followed by its savage enemies reminded me of a parallel case on land—a stricken deer pursued by wolves.

The perai, fortunately, lie only off sand-beaches and in quiet pools, not frequenting the cataracts, where their presence would be anything but acceptable to the men when working in the water. I was fortunate enough to find the spawning place of some perai on the matted clusters of fibrous roots of some lianes, which hung from the branches of a tree into the water, amongst which much earthy sediment had collected, and many small aquatic plants had grown. The sediment gave weight to the roots which kept the clusters under water, and the force of the current

made them buoyant, giving the lianes a slope when the river was high, which kept them not far from its surface. My attention was attracted to them by two perai lying close to them, with their heads up stream, as the men said, engaged in watching their eggs. Procuring one of the roots I examined it, and found amongst it numbers of single eggs and clusters of small jelly-like young, which had been already hatched. The eggs were white and of about one-eighth of an inch in diameter, with a hard exterior. The young were very little larger, and had a glutinous surface, which caused them to adhere together on being taken from the water. They had not acquired any powers of locomotion, but could just wriggle their tails like tadpoles. Under a lens they resembled the egg devoid of its covering, with a gelatinous ridge around three-quarters of its circumference, one end of which expanded into a knob (probably the head), while the other termination was flattened and tail-like. I could not detect any eyes or mouth in them, but their bodies were speckled with gray markings of colouring matter.

The huge lowlow frequents the river, but, strange to say, the common pacu was not met with. In its place, but by no means common, was a small kind—a true pacu—of probably a new species, a few of which were shot by the men in two localities. They are about the size of the common cartabac, but not so deep bodied. Their general colour is a bluish-black, with two large orange-coloured oval areas on both sides of the body, which occupy about one-half of the surface of each side, extending from the back of the gills to

the base of the tail. The scales on the orange-coloured portion are very minute, especially towards their centres. On each side of their throats the scales have a purplish and golden play of colours, while the iris of their eyes is red. They possess the same nutty flavour as the common pacu. One of my men affirmed that he had shot a few of these fish on the Essequebo, whilst all the others said they had never seen the kind before. I regretted exceedingly not having a jar of alcohol with me in which to preserve a specimen.

The haimaras haunt the mouths of branch streams amongst the rocks and sunken logs, and lie in the cavities under the masses of rock in mid river. From places of this sort the men would obtain, in the course of a few minutes, as many of these fish with hook and line as we required for daily use.

In hauling the boats up the shallow rapids near the mouth of the Cutari the men, whilst wading, were frequently struck by conger eels. Every now and then a man would call out "Congler, congler," and jumping into the boat, rub his shins which had been benumbed by a touch from one of these fish. After half a minute or so the numbness wore off and he took to the water again. The boat being in a critical position at the time it was impossible for the men to leave the water. They had therefore to brave out the shocks from these batteries, which must have been very slight, given probably by small eels, or they could not have stood them.

Small long-bodied fish were very common, and one kind, called Couramai, took the baited hook as

long as the fisherman who threw the line was out of sight.

The lukenanie or sunfish was captured by my men in a singular manner. They manufactured an exceedingly rude fly out of a bunch of silk grass (*Bromelia Karatas*) fibre, and attached it to a large hook with a short line and rod. Drawing it rapidly over pools amongst the rocks it was immediately taken by the lukenanie, as the artificial fly is struck by the trout.

Sting-rays were frequently seen on the sandy bottom or grovelling for worms in the muddy banks under water. My interpreter, William, was unfortunate enough to step upon one, which, being of the colour of the bottom, was not observed. It drove its spine or sting into the side of his instep, producing a jagged wound which bled profusely. I immediately put laudanum on the wound and gave him a strong dose of ammonia. In a quarter of an hour after he was writhing on the ground in great agony, actually screaming at times with the pain which he felt in the wounded part, in his groin, and under one armpit. His foot and leg were so cold that he got one man to light a fire and support his foot over it, persisting in trying to put it in the flames. I gave him two doses of laudanum, one shortly after the other, without relieving his sufferings in the slightest degree. After three hours of intense pain he became easier, but had returns of it at intervals during the night. For a week he was unable to put his foot to the ground, and the wound did not heal thoroughly for six weeks.

One kind of ray very frequently seen was of a dark colour spotted with circular yellow patches.

Another dangerous creature which we met was the poisonous water-snake, the haimaralli, one of which I shot as it lay in shallow water with its head raised above the surface. It was eight feet six inches in length, and of a pale reddish-brown colour, with twin rings of black at intervals across its back, which converged together on its sides; while its under parts were whitish-yellow speckled with black. It had two short poison fangs, one on each side of the upper jaw, sheathed in large fleshy sockets like the claws of a cat.

One night, whilst taking meridian altitudes of stars for latitude on the New River, I became aware of a strong smell of musk, and at first thought it proceeded from an alligator; but on looking round I observed, by the aid of the lamplight, the head of a snake poked out from a hole between the rocks. One of the men made a blow at it with a stick, upon which it disappeared. Most snakes emit a musky smell when disturbed.

We did not see a single cayman during our stay on the Corentyne. It may safely be inferred that there are none on that river, a singular fact that cannot be accounted for.

Small alligators, of about four feet in length, are numerous, however, and one of them one night carried off a young cat which the men had brought from Georgetown. Poor puss had gone to the water's edge to drink, when the alligator, with one blow of its tail, swept it into the water and carried it away. On

the following morning we saw the alligator with its snout resting on a rock near by, so I shot it; the men dragging it out of the water and leaving it on the rocks. On returning, some months afterwards, we camped at the same place, and there amongst the bones of the alligator saw those of the cat bleaching in the sun.

Iguanas were numerous, and on one occasion when one in a tree overhead was shot at with an arrow, it jumped down to gain the water, but not calculating its distance accurately, landed on the back of one of the men, who, seeing it coming, ducked his head and dropped his paddle overboard. The paddle being made of paruru or paddle-wood was heavy, and sank, and the man was afraid to dive for it amongst the numerous perai.

The only kind of powie, or curassow bird, met with, was the common yellow-billed one (*Crax alector*), which was in abundance along the river's banks, where we shot as many as we required in passing along. Maroodies of two kinds (the common and white-headed), the duraquaras, trumpet-birds, and muscovy ducks were also numerous.

On Christmas day, within fifty yards of our camp, the men shot eight maroodies, four of each sort, which were feeding on the berries of trees.

The white-headed maroodie (*Penelope pipile*) makes an extraordinary rattling noise with its wings in early morning and late in the evening, evidently amusing itself or following a custom of its kind, for when it likes it can fly noiselessly enough. I examined their wings and found that the males have four curiously

shaped feathers at the tip of each wing with which they make this noise. The end portion of these feathers is stiff, with very short penules. The white-headed females have only three of these feathers in each wing, which are not so intensely modified as in the male; while the male of the common kind (*Penelope cristata*) has only two of these feathers in each wing, which are modified in a less degree than those in the females of the white-headed species.

One day we saw a large eagle-hawk on the sloping bank of the river, standing upon a large Salempanter lizard (*Teius Teguexin*), into the head and neck of which its large talons were deeply imbedded. The lizard seemed powerless in its grasp and could just writhe its body a little. When we came within about fifteen feet of the bird it did not attempt to stir, until a piece of stick was thrown at it, when it tried to fly and carry off the lizard. Failing in this, it gave two or three tight and sudden grasps with its talons on the already almost lifeless reptile, and letting go its hold, flew up into a tree overhead. This hawk was a very handsome bird, its back and wing feathers being crossed with gray and white bars; its head gray, passing into rufus at the nape of the neck; its throat and breast white; and its tail gray, barred with black. The upper portion of each leg was clothed with feathers of a white and dark gray barred pattern, resembling, as one of the men remarked, "a pair of plaid trousers."

On the upper Corentyne we saw a few of the scissor-bill and small gray gulls.

Upon the Cutari were nests of humming birds on branches of water guavas, sticking up above the surface

of the river then in flood. One of these was partially under water, its late occupant, a fully fledged young one, being seated on a twig just above it, with its feathers wet and in a most sorry plight.

We frequently heard the song of the "fiddler," a small brown bird which whistles a regular little tune. Though its notes are sweet and liquid, they have a marked similarity to those produced by a human being.

On many parts of the banks of the Corentyne as we passed along, I could not but admire the beautiful appearance of some tree blossoms, especially of two sorts of gigantic forest trees, the heads of which towered above their fellows. These had no leaves, but wore a crown of blossoms of a mauve colour in one case, and of a saffron yellow in the other.

A low tree with a large stem, growing near falls, was in full blossom towards the end of September, having large pea-shaped pink flowers which covered it, and attracted numbers of butterflies and humming birds.

On high ground or hills near the river, the grand silk cotton tree (*Bombax ceiba*) grew of immense size, with its even dome-shaped top of light-green leaves. The light gray stem of this tree, which enables one to distinguish it at once, is the favourite haunt of a kind of bee which builds a large brown oval nest on its side.

Another tree, the name of which I could not ascertain, attains a greater height than the silk cotton, and has an evenly dome-shaped head of dense dark green foliage.

A species of tree, allied to the silk cotton, was met with, the inner portion of which is much softer than a turnip, and not unlike that vegetable in appearance. It has an exceedingly hard, gray, woody bark, about three-quarters of an inch in thickness, enclosing a pith-like material, which, however, has concentric rings and radiating fibres like ordinary exogenous wood.

On the banks of the Cutari I observed numbers of the Orinooko tree, which grows on the coast of Demerara, to which place it was originally brought from the Orinooko river. It does not occur lower down stream or in any other parts of the interior of the colony.

Upon the Cutari also I saw a small species of bamboo in blossom for the first time. Its flowers were in clusters resembling heads of green wheat in form. Each blossom had from four to six white semi-transparent stamens with light yellow anthers, and two long, delicate, feathery pink stigmas.

A species of *Genipa* met with, bears a very beautiful large white flower with pink-edged petals, and has a flat circular disc of a greenish-yellow colour, with a central cone forming the inside of the flower.

The great belt of mora trees, growing on the alluvium on both sides of the river from the coast region up, cease at the foot of King Frederick William IV. fall, and not a single specimen of that tree occurs beyond.

Upon the borders of the New River and main Corentyne, above the last-mentioned fall, we met with large groves of Brazil-nut trees, and on the ground beneath them obtained numbers of their nuts. I was fortunate enough to find some of the nut-cases con-

taining nuts that had commenced to germinate, each nut sending out long roots from one end and young plants from the other. The roots were all twisted and matted together, quite filling up the cavities in the case around the nuts; yet the nut-case was hard, and showed no signs of decay, so that it is difficult to say how the young plants free themselves. There is a small aperture where the fruit-stalk was once attached, but in only one instance did I find a case in which one of the young plants had found its way out through this and sent forth leaves. It seems to me that when this happens, one plant alone survives of the twelve or fifteen that commenced to grow, and that its matted roots gradually filling the nut-case eventually burst it, when the plant is free to take root in the earth. The strong cover of the growing nut is a necessary protection to the young plant, for without such it would be devoured by one of the host of animals that are ready to eat it.

I planted some of the sprouting nuts, cut out of their hard outer covering, on my way up river, but on returning found that they had all been dug up and eaten by rats or other small vermin. I therefore had a lot planted in a box at our camp above King Frederick William IV. fall on my first return to that spot, and placed on the stem of a small tree cut off some five feet from the ground. In this position they were free from the attacks of small animals, and being covered with a shelter of small palm leaves, thrived wonderfully. These plants were subsequently sent to Kew, where they arrived in a fine healthy condition.

We found many nut-cases with holes cut in them by accouries, the marks of the gnawing teeth of those animals being plainly shown. My men used to open them by chopping off their ends with a cutlass, which, owing to their hardness, was no easy operation. The quatas, or large black spider monkeys, spent a good deal of their time in trying to open them by beating them against the branches of trees, or on hard logs upon the ground; and as we passed a grove of Brazil-nut trees it was amusing to hear the hammering sounds produced by these fellows at their self-imposed tasks. Where a single monkey was thus employed the blows were most laughably "few and far between," the creature showing its true indolent character by the slow way in which it performed its work, resting for a few minutes between every blow. It also showed an amount of perseverance, however, that one would not look for in a monkey, and a knowledge that it would eventually reap a reward for its hard labour.

Goodness knows how long it takes one of these monkeys to break a nut-case; but the time must be great, for on one occasion, during our journey from the New River to the Upper Essequebo, we got quietly amongst a lot of the nut breakers, and secured a nut-case which one in its hurry had left upon a log, and which was worn smooth by the friction of the monkey's hands. This had evidently been pounded for a length of time, but showed no signs of cracking. Its natural aperture was large enough to allow the monkey's finger to touch the ends of the nuts inside, which were picked and worn by its nails. Near the same place we saw a nut-case split in two, on the flat

surface of a large granite rock, that had evidently been broken by a monkey, for there were no Brazil-nut trees, from which it could have fallen, overhanging the spot.

The blossoms of the Brazil-nut tree are large and yellow, having a delicate aromatic perfume. They are similar, but larger than the Caccarali or monkey-pot tree (*Lecythis Ollaria*), whose flowers are so powerfully scented. In passing over a part of the forest between the Berbice and Corentyne rivers in December, the ground beneath the last-mentioned trees was strewn with their decaying blossoms, which emitted a most disagreeable smell.

My men had a habit, on seeing a tree whose name was unknown to them, of cutting a notch in it with a cutlass to try its quality. True to this instinct, on one occasion when encamped in the forest one man tried the wood of a large whitish-barked tree. As the chips flew from the blows of the cutlass the wound in the tree sent forth one of the most disagreeable and disgusting smells that ever smote on mortal nose. The sickening smell of boiling nitric acid was nothing to it; everybody exclaimed at once how dreadful it was, while some actually fled from the spot. We got some mud and dabbed it quickly over the notch, but apparently without any good effect; and as it was too late to move our camp, we were forced to spend the night in the polluted atmosphere.

Prickly Soweri palms (*Astrocaryum jauari*), so common at the heads of all rivers in swamps near their banks, are absent on the Curuni and Cutari, above Sir Walter Raleigh's cataract.

The graceful urua palm is seen on the banks of the Corentyne, while the Moromorita (*Astrocaryum murumuru*) is common in the forest on the higher lands. The nut of the latter palm when young contains a white edible pulp not unpleasant to the taste. In one encampment deep in the forest, under the arching branches of these low palms, the camp fires lit up the arch-like festoons of leaves with most beautiful effect, giving them the appearance of Gothic architecture. The long prickly dead leaf-stalks scattered on the ground under them made walking a torture to my men, for, in spite of every care, the thorns got into the soles of their feet, and had to be extracted at once before they could proceed.

In the nut of one palm—the urua, I believe—the men obtained the large grub-like larvæ of some beetle, which they looked upon as a great delicacy, roasting them on the fire, and sometimes even eating them uncooked.

Of insect pests that attacked us for our blood, the Corentyne contained an abundance. Amongst these were mosquitoes, black-flies, and cow-flies, on the main river; and ticks, bête rouge, and cow-flies in the forest. The mosquitoes, however, seemed very local in their habitats, some islands being infested with them, while others, a mile or two off, had none.

One day I felt a curious nipping sensation under the skin of my back, which, on examination, was found to be produced by the larvæ of a species of bot-fly, which the men called a "mosquito worm." These grub-like larvæ are similar to those called warbles, which form tumours in the backs of cattle, and are

deposited by a fly when one is bathing. I got one of the men, skilled in the extraction of these grubs, to operate upon me, who, having put tobacco juice into the orifice of its abode, made it what he called drunk, so that it let go its hold with its hooks, and was squeezed out. One man had five or six in his back, which appeared there a few days after mine. A red howling monkey which I shot had a huge one in its side, as well as a film over one eye covering the sight.

The long and barrel-like nests of a wasp, called the boraserie, were frequently seen suspended from the branches of trees. As a rule, their form was that of a long truncated cone of about eighteen inches in diameter and three feet in length. Portions of the sides of these nests were covered with wasps, probably young ones sunning themselves. It was impossible to go near enough to one to get a good look at it, for its inhabitants did not belie their name, but were very waspish. The wasps were of a dark colour, with brown abdomens, and stung like fiends, as I found to my cost when examining some rocks one day, under a tree in which a nest was suspended at least fifty feet up.

There was always a large spindle-shaped ants' nest attached to a branch close to these wasps' nests. The ants inhabiting them are probably the small amber-coloured kind so frequently met with, which when touched emit such a disagreeable resinous smell.

What feelings the two kinds of insects can have in common, that they should live together in harmony, it is hard to understand, unless it be that they mutually protect each other.

This social group requires the mention of a third party to make it complete, and this is no other than the yellow-backed mocking bird (*Cassicus persicus*). Around and almost touching the habitation of the wasps are the long hanging nests of these birds, in and out of which, during the breeding season, their owners go with impunity. The wasps, by their presence, no doubt, protect the young and eggs of the bird from the attacks of monkeys, but of what service the bird is to the insect is not so easily understood. It seems strange that the wasps should tolerate the presence of such busy, noisy, chattering neighbours.

There is a large ant, called the tamrian, with a brown abdomen, black thorax, and dark-brown head, which does not build a nest, but occupies old wasps' nests or hollow trees. Some of these took up their abode in one of the lockers of my boat, and had to be destroyed with scalding water. They had their young and eggs in one mass, the former being grub-like, and larger than the parent ant, while some were enclosed in web cases in a sort of chrysalis condition.

Whilst my boats and stores were being portaged at King Frederick William IV. fall, I had an opportunity of witnessing an interesting attack made by a band of yackaman ants (*Eciton sp.*) on a colony of tamrians, in a hollow tree near the water's edge, surrounded by a patch of white sand. A band from a column of yackamans crossed the sand, and climbing the tree entered the home of the tamrians, where they were met by the inhabitants and the fight commenced; but as the former poured in by thousands, the fight was carried on in the hollow tree, lasting for about

a quarter of an hour. During that time, many yackamans were seen coming out of the hole carefully bearing their wounded comrades, some of whom were legless, and making off across the sand in the direction taken by the main column. Then soon all began to pour out again, but these carried the dead bodies of the unfortunate tamrians whom they had slain in fight, probably not a single one escaping. The band then marched off in a long line, and on their way had to ascend a steep rise in the sand, up which many of them, who had lost a leg or two, could not climb, but kept perpetually rolling down after having partially ascended. Then it was that the most singular part of the occurrence took place, whereby they exhibited such a powerful instance of sagacity.

As a wounded one was struggling up, many unloaded and unwounded comrades massed themselves together below it, and as it gained inch by inch they advanced slowly in a compact mass behind, so that when it lost its footing and rolled down it did not go far before it was brought up against their bodies. Sometimes they almost shoved it up, and getting it safely to the top, made off and left it to plod along the level by itself. This was not an isolated instance, but was done repeatedly by separate gangs of ants.

At one place on the Aramatau when watching great columns of these yackamans hunting, accompanied as usual by numbers of little birds, I observed that the latter did not touch a single ant, but had splendid feeding on the insects that flew up from the ground as their foe advanced, which they caught on the wing, or as they alighted on tree limbs. These

birds were small, and of four or five different kinds. They kept hopping from twig to twig over the advancing ant columns, chirping and singing merrily.

As the ants marched along it was amusing to see the grasshoppers, crickets, small cockroaches, &c., scuttling along in a most agitated state, evidently fully aware of the approach of the ants, a yard or so behind them. They bolted out from under the dead leaves in numbers, and in many instances seemed too frightened to look whither they were going. Thus they frequently hopped the wrong way and fell into the middle of the column of their enemies. What the ants did not get the birds secured, so between them they cleared out their victims over a large area.

The main column of this lot, composed of closely-packed ants, was two feet in width and of unknown length.

The bodies of these ants were of a dark reddish-brown colour, while their abdomens were of a similar but lighter tint. Their last pair of legs was much longer than the two other pairs, and it appeared as if they did not use them in running, but dragged them along. They are called howroorays or yackamans by the Indians. Another species of the same ant very frequently met with is of a chestnut colour.

I frequently observed a large species of dragon-fly tossing out large drops of water from small pools on the hollows of rocks, with the extremity of its abdomen, as it hovered over them. The men said that when these insects bailed out water in that manner it was a sign that the dry season was at its height.

Whilst examining a red cliff section on the New

River, numbers of crabs came out of their holes in the soft clay under the water's edge, to have a look at me, stalking slowly along sideways with their claws elevated in a defiant sort of way; and some actually attempted to climb up my legs when I stood still.

Between the New River and the Essequebo a species of frog, called the divi-divi, which has beautiful ultramarine markings on a black ground, was very numerous.

In the forest between the Corentyne and Berbice I found a curious little reptile, of about five inches in length, which had rudimentary fore limbs and two flaps representing hind limbs. Its body resembled that of a snake, while its head was lizard-like, and its scales were arranged in rings. It belonged to the *Amphisbæna* family, most probably of the genus *Chirotes*.

Water-dogs or otters (*Pteronura Sanbachii*) were exceedingly numerous on all portions of the river, and often appeared as if they wished to attack us but lacked the necessary courage. We found a young one at the foot of a steep clay bank, vainly endeavouring to climb back to the mouth of the burrow, from which it had fallen. Having become exhausted in its endeavours to regain its nest, it made no effort to escape, and was captured by the men. We then placed it higher up near the mouth of the burrow, just as its mother came swimming down river. Seeing us and hearing the cries of her young, she hurried up to within twenty feet of us, diving and coming up repeatedly in a most anxious and excited state. When we pushed off from the spot she landed, seized her

infant in her mouth, and disappeared with it into her burrow. Presently, to our surprise, she appeared on the top of the bank a few yards off, having evidently left her house by a back door.

I shot a large female water-dog, which, being busily engaged eating a cartàbac on some rocks, and snarling at her husband, who wished to deprive her of it, did not observe my approach. Its length from the nose to the end of its tail was five feet four inches.

After all our toils, troubles, and fatigues, we arrived safely at Skeldon, at the mouth of the Corentyne, on the 10th of January, 1872, where I was hospitably entertained by Dr. Leary until my departure for New Amsterdam a few days later. Mr. N. Winter, the attorney of Skeldon estate, was on a visit to that place, and he and I examined the site of an ancient Indian village of the stone period, where, amongst an abundance of pottery and bones of animals, we found a curious little polished stone amulet, representing a sort of human figure.

CHAPTER XIV.

BERBICE AND DEMERARA RIVERS.

Leave New Amsterdam — Description of Journey up Berbice, across to Demerara River, and down to Couchman's — Toads eat Fire — River Shells — Roaring of Jaguars — Tapir rushes through Camp — Shoot Quata Monkey — Archway of Ants — Scenery on Berbice — Reach Georgetown.

I LANDED at the town of New Amsterdam, at the mouth of the Berbice river, on the 14th of January, 1872, having come with my men and boats in the schooner "Daylight," from Skeldon, and spent some hours in plodding about the streets in search of a resting place. Unfortunately, I found the only hotel of the place closed, while all the lodging houses were full. I therefore made my way to the quarters of some gentlemen, amongst whom were my friends Mr. Payne and Mr. Bagot, whom I had known in Georgetown, where I was kindly received and entertained during my two days' stay.

Procuring stores for my journey, I left town on the morning of January 17th, and proceeded up the Berbice river. On arriving at the Etuni creek, I made a journey across to the Demerara, coming out on that river at a place called Quitaro, near the head of the first rapids. Returning to my boats on the Etuni, I continued my journey up the Berbice, arriving at the first fall, called Itabru, on the 1st of

February. Placing skids on the rocks along the side of this steep but narrow fall, we got our boats over, and, working up numerous cataracts and rapids for a space of three days, came to Christmas cataracts, where we again had to lay skids on the rocks and make a path over which to portage the stores. At the foot of this cataract I left one boat and three men, and taking the other, with twelve men, and stores for one month's consumption, pushed on up river. We ascended a few more cataracts above which the river narrowed considerably where it ran amidst low swampy tracts.

In these swampy portions, where the banks were low, the water was shallow and ran swiftly, the whole river being not more than fifteen yards in width. Beyond them it suddenly expanded to a width of forty yards, having high clay banks lined with mora trees, and ran with a very sluggish current.

The prickly Soweri palm grew in abundance on all the low muddy spots adjoining the river, some of which had most curious tops. Instead of a single head many of them branched into three distinct portions, having a curious, un-palm-like appearance. In the narrow parts, also, long trailing vines and creepers hung down from trees whose branches stretched across overhead, forming beautiful wall-like patches of foliage. These, as well as the large dead trees that lay in numbers across from bank to bank, had to be cut through before the boat could pass. The river being only some thirty inches in depth, enabled eight men to wade in advance and cut the fallen trees, or tacoobas, with axes, and tree branches and vines with

cutlasses; while four men were employed bringing up the boat. From these narrow holes we at times emerged upon fine open reaches where we paddled quickly along, feeling greatly relieved for a time, until we plunged again into bush and narrows.

Working in this way we only made a southing of 14 miles in five days.

Finding by altitudes of stars that we were in 4° 4′ 41″ N., and therefore not many miles from the spot where I struck this river in 1871, I determined to perform the remainder of the journey on foot. Leaving two men in charge of the boat, I went on with the rest, cutting our way through the bush, not far from the river's bank, from bend to bend, for three and a half days; when we had the satisfaction of arriving at our old camp of April 14th, 1871.

The first time we arrived at that place a cayman welcomed us; this time we were greeted by a jaguar, which serenaded us from the forest close to the opposite side of the river.

Having accomplished our task we descended the river in safety to the end of a path, below the first rapids, which led to the Demerara, where we formed a camp and made preparations for our journey to that river, for the purpose of descending it to Georgetown.

In coming up we had passed a small Ackawoise village, where a few Indians of that tribe resided, the head man of which promised on my return to guide me to the Demerara. I therefore sent down for him, but my messengers returned with the unwelcome news that the place was entirely abandoned, and a

newly-made grave occupied the centre of the floor of one of the houses.

We therefore started, without a guide, along the faint trail, to try and find our way across. Fortunately some Indians had performed the journey a few weeks previously, and had marked the obscure portions of the track by breaking twigs and small trees here and there, besides leaving footprints on the sands of the open country traversed by the path. In a little over a day and a half we reached the banks of a small stream, called the Itaboro, where the path ended, from which point onwards it was evident that Indian travellers proceeded in woodskins. We therefore searched for these craft, in hopes that some might have been left by Indians, and were successful, finding one good one, a second imperfect one with a split bottom, and a number of mere remnants.

We set to work and repaired the two canoes, having to lash half a moco-moco stem along the split, and sew it on with thin bush-rope, through holes bored here and there in the bark, and then caulk the crack with scrapings of the inner bark of the trumpet-tree.

The day following our arrival at Itaboro creek, I had our small supply of stores, &c., placed in the woodskins, with a man each to propel them, and keeping two other men besides, sent the remainder back to boats on the Berbice to take them down that river, and on to Georgetown. Then at 9 A.M. on the 11th of March we commenced our perilous journey, two of the men walking with me in the forest along the edge of the creek in a muddy swamp, while the other two

brought down the leaky overladen woodskins. Rain fell heavily and added to our discomforts, causing everything to wear a gloomy aspect. All retreat to our boats in case of accidents to our canoes was now cut off, and we did not know how far we would have to go before reaching the Demerara; or whether we would meet with Indians on the part where we would come upon it. Every now and then we shouted to the men in the woodskins, who were hidden by the tall reeds and shrubs on the river's edge, to learn their whereabouts, and prevent our getting separated.

After plodding on for some hours over a low tract that got more swampy at every step, owing to the water of the creek spreading in pools over it, we heard a shout from our woodskin men, and hastened to the spot, fearing that some accident had happened; when to our joy we found that they had discovered an old woodskin hauled up on the creek's side. We set to work and repaired it by sewing a large bark patch on a hole in its side, and to it transferred the load of the split and leaky canoe. I then went in it as steersman, with one man in the bow as paddler, while the other man, who had been walking with me, went with my interpreter in the split craft. Thus the whole party was accommodated with seats, and I went on down stream in a more cheerful frame of mind. It was well that we found the third canoe, for the banks of the creek had by that time become submerged, and we should have had fearful work in wading from tree clump to tree clump through the dismal swamp.

In some places we had to lie on our backs as we shot under fallen logs where our bodies touched the

log above, and in others grazed over sunken ones or with difficulty evaded them. The split woodskin, getting worse and worse, was kept afloat with great difficulty. Late in the afternoon we found an old wooden corial, bottom up, partially under water, which we joyfully righted, bailed out, and caulked. In so doing the men neglected to bail out the split canoe, and it sank under them just as they scrambled into the corial.

That night we camped on a little spongy island in the swamp, formed of rootlets, dead leaves, and loam, around the matted roots of a cluster of corkwood trees; and being without any shelter were of course visited by a heavy fall of rain.

Next day our troubles ended on entering the Demerara river, where, with a width of twenty yards, it ran swiftly in a north-westerly direction. Borne down by the current, we came to a village landing, and walked up to the houses of some Ackawoise Indians. This place is called Paintecobra, and I determined its latitude to be 5° 6′ 53″ N. Hence we descended the Demerara, and in passing an Indian village, called Booboo, purchased good strong woodskins, leaving our rattletraps behind.

We portaged our craft at Oruru-mallali without any difficulty, and arrived at a village called Enowdah, where we stopped for a day or two, making from thence a short journey to Mabooroo mountain.

Our next stoppage was at Mr. Couchman's wood-cutting grant, where I left my woodskin, and through the kindness of that gentleman obtained a small bateau to continue my journey in, as the rough water

in the lower reaches of the Demerara would swamp our canoes.

Many of the incidents of this journey were so similar to those which had occurred on previous occasions already recorded, that I will not trouble the reader with a repetition of them, but will merely note down one or two that I think are perhaps worth mentioning.

One of my men on this journey was Alexander Paulie, who, having seen a good deal of bush life, was acquainted with the habits of many birds and quadrupeds. The former he could skin and preserve as well as the best taxidermist; and about the latter, especially tigers, he could tell many wonderful tales. His stories of the fabulous "water-mules" and "water-monkeys" prepared me to accept just as much of his other stories as I liked, so that one night in camp, when he asked me if I had ever seen a toad eat fire, I conscientiously replied in the negative, and added that I did not believe that anyone else had seen them do so either. He said that when he next saw a toad he would show me that it could swallow a live coal without any apparent inconvenience. When, therefore, one evening in an opensided house at Anaimapeur, on the Upper Demerara, a number of large common toads came hopping about on its clay floor, Paulie said that he would prove his words. He got a few small live coals about the size of dice, from the wood fire, and threw them on the ground in front of a toad, while I closely watched the result. The toad hopped up to one of the red-hot pieces of wood ember, leant forward, darted out its tongue to which the coal adhered, and

drawing it in hastily swallowed the tempting morsel seemingly to its entire satisfaction. It remained stationary for a short space of time and then hopped merrily away.

Paulie then informed me that though red-hot wood ember did not hurt these animals a piece of red-hot nail was too much for them. He tried the experiment once with a short piece of red-hot nail, which the unsuspecting toad swallowed, but the iron burnt its way out, and the toad went into convulsions which terminated in death. I imagine that the toad is taken in by the wood ember after all, and does not devour it from any morbid taste, but because it imagines that it has got hold of a firefly.

Another statement of Paulie's was a rather singular one, but requires confirmation. He affirmed that when a dog licks up the blood of a powie (*Crax alector*), or chews up the quill-pen feathers of that bird containing blood, that it will go raving mad and die. My interpreter went further, saying that the uncooked flesh of the powie has a similar effect upon a dog. They were both particular on the point that true madness was produced, and not only a condition of temporary fits. If true, this is very curious, and suggests the question as to whether hydrophobia, in other parts of the world, may not be produced in dogs by their having partaken of some particular sort of food.

River crabs, as a rule, feed upon dead animal substances or fruits, but in one instance I observed a crab which had seized upon a live burabararoo frog by one hind leg and drawn it into a cavity between

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some rocks, where the frog's body was tightly jammed. The poor victim was clinging with all its might by its fore feet to the rock on either side, but could not get its leg out of the claw of the crab. How long this unequal struggle had been going on I cannot say, but it must have been for a considerable length of time, for on stirring these animals with a stick, the foot of the frog came off, and the crab retired gracefully with it into its house, while the poor frog hopped slowly away in a most exhausted condition.

In the sands at the bottom of the shallows in the narrow parts of the Berbice river I found numbers of long narrow shells, probably of a species of *Mycetopus*. Fine river shells are very abundant on many of the rivers, especially of the *Melania* family, which inhabit the running water of the cataracts. *Castalias* are found on the Rupununi, and *Hyria syrmatophora* and *H. corrugata* on the Essequebo, near Ouropocari.

The Berbice river, from the foot of Itabru cataract upwards, is the home *par excellence* of the cayman. These unsightly monsters are seen there in numbers, and are exceedingly bold. One day whilst stopping to breakfast, one of the men hauled in some perai with hook and line, and left them on the shore within ten feet of the boat. A cayman, which had been watching the proceeding with interest, swam hastily up and seized one of the fish. To punish it for its boldness I gave it a charge of shot behind the eye which apparently killed it, so I had it hauled ashore and made a sketch of it. After finishing this, one of the men took a cutlass and chopped off the end of its tail. The moment the blow fell the brute made

a fearful struggle, opened its eyes, and apparently returned to life again, but was soon despatched with an axe.

One night some haimara had been caught and hauled into the boat, where their blood got mixed with some water in its bottom. A cayman, attracted to the spot by the smell of the blood, made several efforts to upset the boat by striking it heavy blows with its tail. We captured two young caymans, each of about three feet in length, and tying a cord round their bodies kept them in the boat for some time, intending to take them to Georgetown, but they died on the voyage down.

On the rocks at Christmas cataract we saw a common alligator sleeping soundly. One of the men approached it softly and killed it with my geological hammer, by giving it three or four decidedly heavy blows on the top of the head.

Upon going to my hammock one night I saw by the lamplight a sticklike thing, which I touched accidentally with my foot. It rolled away like a hoop, and then straightened out again, when I saw it was a snake and despatched it. On examination it turned out to be a young poisonous labaria, two feet in length. I had hardly "turned in" that night before the sweet sound of two jaguars, calling to each other, smote upon my ear. One was near our camp, but the other far off; and they kept up their conversation for a long time. The low deep notes of the call of the nearer one seemed to make the air quiver and vibrate. It was no doubt a grand sound, with a true noble ring in it, but one that I would gladly have dispensed with

in our situation, with intense darkness around, and no fire near.

So used had we become to forest life that we slept the sleep of the innocent amidst many an unsuspected danger. Some nights, however, we had stirs in camp, the quick ears of the men detecting the footsteps of an animal prowling about us. Then efforts were made to blow life into some smouldering remains of a cooking fire, often without success. When we were traversing forests away from our boats the men took good care to keep a fire smouldering which could be blown into flame in a few moments.

One night an unusual occurrence took place, which caused some merriment after it was over, but which for the moment startled us all a good deal. We were in our hammocks and most of the men were asleep, while I had just finished my last pipe and was on the point of composing myself to rest, when I heard a heavy body splashing in the river, and then coming thundering up the bank, crashing through the trees towards us. The moonlight fell upon the ground here and there through gaps in the tree-tops and lit up the place, disclosing the network of white hammocks, where the men slept. Towards this spot the crashing noise was making its way, so I sat up to see the result just as the men, roused out of sleep by the noise, and not comprehending its cause, began to yell out in a most appalling manner. This evidently turned the frightened animal, for in an instant I saw the remaining brands of the fire scattered in every direction as it plunged amongst them, and next moment its huge dark form brushed past my elbow like a flash of

lightning. This was rather too close a shave to be pleasant, for had the animal—a large tapir—been going at right angles instead of parallel to me I should have been completely destroyed. It was very evident that the tapir was going somewhere, most probably in advance of a tiger, and we did not feel very safe until some minutes had elapsed, in case that animal might likewise come headlong through our camp.

From a flock of hogs the men obtained a young one, which we kept for a few days, feeding it on the inside of the nuts of the Soweri palm, but it eventually escaped. The full-grown hogs feed upon these nuts, breaking their extremely hard shells with their strong teeth.

At daylight one morning we awoke to find a large quata monkey directly overhead, which, at the moment we emerged from our hammocks, threw down some dry limbs amongst us, causing us to scatter for safety, to our great annoyance. Ben fired at it to drive it away, never imagining that it could be wounded at such a height, when, to our astonishment, down it came to the ground amongst the hammocks from a height of over 120 feet. This fall, it might be supposed, would have been enough to kill it; but on the contrary, it seemed rather to arouse it to life, for with a hurried look around, it sprang up, climbed a hammock pole, and from the top waved its long arms about as if to reach the branches overhead. With its red face, in which were a few shot holes, and its black shaggy coat, it was a curious-looking creature. Descending rapidly from the pole it scuttled quickly to a small tree, up which it ran, and climbing from its top into the branches of a large one, sat looking down

upon us for a short time in a most comical way. Then it slowly made off as if nothing had happened.

I shot a sort of polecat, called a hocker (*Galera sp.*), an animal about the size of a cat, of a dark-brown colour, which was running nimbly amongst the tree branches.

On Wahmarra mountain, on the Upper Demerara, we saw a sloth (*Bradypus torquatus*) lying on its back at the foot of a tree, which it grasped with its hind limbs, covering its head with its fore legs. It was in a very weak condition, having a large wound in its back which was swarming with maggots. It had most probably been attacked by a harpy eagle, which had attempted, unsuccessfully, to drag it from its hold on a tree branch. Weakened by loss of blood, it must have subsequently fallen to the ground. I got one of the men to put it out of its misery.

We found the nest of a hanaquah (*Ortalida motmot*), and also of a duraquara (*Odontophorus Guianensis*), both containing eggs. That of the former bird was built of sticks on a low tree, and contained four speckled eggs, little inferior in size to those of a fowl. The nest of the latter was built of leaves and twigs, placed under a low shrub on the ground, and was roofed over, having a small entrance in front. It contained eight white eggs, in size between those of a fowl and pigeon.

The hanaquah is easily tamed, and is said to breed with common fowls, the hybrid being a very pugnacious bird.

The stinking or Canjé pheasants were seen in great numbers on the low trees bordering the estuary of the

Berbice, between New Amsterdam and Mara sugar estate, and in the month of January were sitting on their twig nests.

During our journey across, from the Etunie to the Demerara, we killed three labaria snakes; and on our way to the Mabooroo rock, destroyed a large bushmaster that was coiled up asleep under the edge of a log over which we had all stepped. The last man that passed roused it, when it made a blow at his leg, but fortunately missed him.

In a still wide portion of the Upper Berbice we saw the *Victoria regia* growing luxuriantly, with leaves four feet five inches in diameter, at most probably the same spot where Schomburgk first discovered this beautiful plant. The inside of its flowers was full of large brown beetles.

I observed a most singular ant procession, on a log forming a natural bridge over the river. My attention was first attracted to it by seeing a broad band of red ants clinging together in a continuous cluster the whole length of the log, and forming a covered archway with their bodies, beneath which ran the stream of ants. They were of three sizes, but all of one species, called the arua or tiger-ant. The spring of the arch was formed of ants facing outwards, supported on their hinder legs and the back of their abdomens. Others clung to their heads, and thus formed the rest of the arch.

Of a sunny morning, whilst going along in a boat on any of the rivers of Guiana, one is often annoyed by a large kind of bee, which buzzes round and round one's head, and is with difficulty driven away. We

used frequently to rid ourselves of them by batting them with a paddle. I was told that an Indian once had the misfortune to kill his wife whilst thus endeavouring to drive away one of these bees. He was sitting in the bow of his canoe, with his back to his wife, and in swinging round his paddle its edge caught her on the side of the neck, probably on the jugular vein, and killed her instantly.

There are many fine examples of Indian picture-writing on the Berbice, the most curious being those below the first fall. It is difficult to say why they are placed so low down on the rocks, for at the time of my visit, though the river was very low, still parts of some were under water.

From seeing me make sketches my men were all imbued with a mania for doing likewise, and many of them brought little blank cash-books and pencils, in which they made some of the most curious sketches of scenery imaginable. They made the parts of a picture in different planes, without any connection between them. Thus a mountain rose from a ruled line, and a tree in the foreground rose from another, leaving a blank between which they could never fill up to make it look like one picture. When I stopped to sketch picture-writing it was amusing to see how some got out their pencils for the same purpose, while others scratched their sketches on the bottoms of their tin pans.

The scenery on the Berbice is very monotonous, the usual short reach of river, bordered by forest on either side, palling after a time upon the sight. In some parts below the cataracts some cliffs of white

clay, with open savanna on their tops, form a grateful change to the traveller. Above Itabru cataract glimpses of mountains on the west are obtained. I visited two of these on my way down river, and from the top of a precipice 720 feet above the sea obtained a fine view, ranging from south-east to north-east, the principal feature of which was a slightly undulating expanse of forest-covered country, broken only by one or two small and distant ridges, without a single patch of open country to break the monotony of the dark-looking forest foliage. This tract melts so gradually into the sky at the horizon that no abrupt line of demarcation is perceptible. It was not surprising to me to hear one of the men remark, that from this spot "you can see quite out of sight." After having been imprisoned, as it were, in the forest, where no greater distance of view than that afforded by a reach of river a quarter or half a mile in extent could be obtained, it was a great treat to get a view like the above, where the eye could roam freely over a boundless region.

From Mabooroo mountain, west of the Demerara river, at an elevation of 844 feet above the sea level, an extensive view of forest-covered country is obtained, which well repays the short walk to it from Enowdah village.

Indians are scarce on the Berbice, and are seldom met with on the river itself, but members of the Arowaak tribe live between it and Demerara in their lower courses. On the Demerara there are a number of Indian villages above the Oruru-mallali, or great fall, but only a few below. Their inhabitants are chiefly

Ackawoise, amongst whom are many Indians from the Potaro and Siparuni rivers, and from the Pacaraima mountains, who come there to trade, or work on the wood-cutting establishments lower down river. At one of the villages, called Pongabi, there was an old Indian woman with her grown-up son and daughter, between whom there was the greatest dissimilarity. The son was the offspring of a Mulatto man, and did not look as if he had any Indian blood in his veins, having frizzly hair. The daughter was exceedingly dark, and very pretty, with a splendid figure, being the offspring of a Madras coolie.

The night I was at Oruru-cobra village I sat up taking meridian altitudes of stars for latitude, while Paulie, wrapped in his blanket, sat by the artificial horizon, to wipe the heavy dew that settled on its glass from time to time. Next morning the interpreter overheard the Indians discussing the proceeding, and all agreed that we had been practising sorcerers' arts.

On the way down river I landed at Seba to have a look at the spot rendered classic by being mentioned in the 'Wanderings' of the great naturalist, Waterton.

Upon the 27th of March, under the cover of night, I landed at Georgetown, in a very travel-stained condition, and made my way to my usual quarters at Beckwith's Hotel, glad to be once more within the confines of civilization.

CHAPTER XV.

THE UPPER MAZARUNI.

Leave Georgetown — Reach Peaimah Fall — Difficult portage at Aruwai Falls — Sericoeng Falls — Difficulty in obtaining Woodskins — Send back Boats to the Merumé River — Pass "Starvation Landing" of Apiopai — Mysterious Footprints — Deep Pools the Haunts of Tigers — Guacharos Cave — Waterfall on Roraima — Chichi Portage — Ayangcanna — Journey from Haiacker to Ourindouie Fall on the Ireng — Return — Ow-weang Portage — Cross mountains to Merumé — Descent of Merumé Mountain — Rejoin our Boats on Merumé River — Descend Mazaruni — Arrive in Georgetown.

I STARTED from Georgetown with Mr. J. Bagot upon my last journey to the interior of British Guiana on the 3rd of September, 1872, for the purpose of exploring and mapping the Upper Mazaruni river, and on the 1st of October reached Peaimah fall, where that stream debouches from the sandstone mountains on to the great plain of its lower course.

Not being able to ascend this fall, we made a portage on its eastern side of three-quarters of a mile in length, over which we transported one boat, leaving the other and most of the stores at its foot.

Although only a long sloping cataract, with a total height of fifty feet, Peaimah has a most formidable appearance, owing to the great body of water it contains. About midway down one side there is a huge overhanging flat rock, on which I sat for a short time looking upon the seething foam spurting upwards and onwards in fleecy masses, here sweeping forwards,

there curling backwards, scattering spray and mist high into the air.

Leaving its head we paddled up the black water stream between high bare sandstone precipices on either hand of its narrow valley. These precipices were flanked by low hills rising some 300 feet above the river, and hemming it in on both sides. Late in the afternoon we reached a landing place on the right hand, not far below a cataract, where the river was narrowed to about one hundred yards in width, and ran with a swift current.

There we camped, and next day followed the path through the forest, until we came out on the river again above the falls. We then traced the edge of the river down for a considerable distance, at times upon flat sandstone rocks along its edge, at others in the thick bush amongst a confusion of great rocks; and passed on the way numbers of falls, some in steps of a few feet each with rapids between, while others were from ten to twenty feet in height. The foliage around these falls was most varied and beautiful, every plant and tree growing with rank luxuriance.

Scrambling over chasms and clambering down steep rock sides, amongst spiked tangled vines, we reached the main channel of the river at the foot of the last formidable fall, one of forty feet in height. Behind it was a cave most difficult of approach; in order to reach it we had to cling to a slightly sloping wall of rock, above a dark seething pool of turbulent water, with footing on a ledge not six inches in width.

A few of the Kaieteur swallows were clinging to the cave's walls, and their nests of clay and green

moss, containing pure white eggs, were built on the ledges and in crannies of the rock.

Feeling satisfied that we should have to abandon all idea of taking our boat up by water, but would have to convey it over the portage, on Venezuelan territory, we left the river, and striking off for the path returned to camp. This set of falls, called Aruwai by the Indians, occupies a distance of two miles of river.

We commenced our formidable and difficult task of making a portage on the 7th of October, and did not finish it until midday on the 15th.

Whilst we were busily engaged upon this undertaking, two Indians passed through the portage on their way up river, having left their woodskin at the foot of the falls, intending to proceed in another which they had hidden at the upper end of the portage on their journey down. They told the interpreter that we would meet another great set of falls farther on which we could not possibly pass, so I got them to promise to bring woodskins to its head for us to proceed in, and they continued on their way.

We were two days in getting the stores and boat across, and then had the satisfaction of launching our boat on the river above, after having accomplished a most difficult feat. We had dragged a large heavy boat of 28 feet in length, by means of a block and tackle, up a steep rocky hill at an angle of 56°, upon a system of skids lashed together like a huge crooked ladder, amongst great blocks of rock to a height of 165 feet; and then along a skidded pathway, over uneven rocky ground for a distance of a mile and seven-eighths, rising on the way to a height of 275 feet

above the spot from which we hauled it out of the water.

In order to expedite the carriage of stores up the hill we made a strong sledge, carrying over 200 lb. weight at a time, which we hauled up by block and tackle. As its runners were soaped to reduce the friction, it went by the name of the "greased lightning." Each time it reached the top it was unloaded and turned round, when it ran down by its own weight, being checked by a rope behind. Many an Indian must since have gazed upon it, as it lies decaying at the foot of the portage, and wondered what possible purpose it could have served.

At Aruwai I watched, with much interest, a pair of humming birds feeding on small insects, which were flying slowly across the river in immense numbers. Every now and then they would dart out from a tree, poise themselves in the air in front of an insect, seize and swallow it, and so on with another and another, returning now and then to the tree to rest. I caught one of these insects and found it to be a sort of diminutive May fly (*Ephemera*), of about one-eighth of an inch in length.

One afternoon our camp at the foot of Aruwai was visited by yackaman ants, one column of which, as ill luck would have it, marched directly under the awning in which our hammocks were slung. They kept pouring through in a band three or four inches wide from about 4 P.M. until we went to sleep at 9 P.M. When we turned in we had to be careful not to tread even near them, and when once in our hammocks dared not get out again in the dark.

Early in the evening, thinking to divert the column, we threw a handful of powder on them, and igniting it with a live coal, sprung our mine, blowing up thousands of the enemy. This had no effect on those coming behind, for they marched on as before, after the temporary panic in their ranks had subsided. Next morning, at daybreak, the column had passed on, but now and then a weak tired-out straggler was seen wending its weary way along the path its comrades had traversed. Here and there I saw bodies of some which had died of exhaustion, or whose span of life had ended on the march.

At midday, on the 17th of October, we continued our journey along the wide smooth river, the valley of which was bounded as before by high precipices a mile or two back from either side, but with no flanking hills, for we were then on a level with their tops. Next day we came to the foot of the next set of great falls called Sericoeng, and packing up a few days' provisions started on the Indian path leading past them. Ascending a long mountain spur, we reached a level table-land, 1350 feet above the sea, and 830 feet above the level of our starting point at the foot of the falls. Traversing this for the remainder of the day at no great distance from the edge of the river's valley, from which proceeded the thunder of great falls, we camped in the forest.

On the following morning we came out on the river, at a spot where it formed a wide pool, at the foot of a sloping cataract called Siparimer, lined by an extensive sand-beach, dotted in places with low alder-like trees. The greater portion of this beach was covered

with dry drift logs of various sizes, packed closely together, a most unusual sight in this country, where most of the forest trees are heavy, and sink to the bottom of the rivers.

We had not been seated under the shade of a tree for more than ten minutes, before three Indians appeared in sight coming towards us. One of them proved to be the man who passed us at Aruwai, who, faithful to his promise, had come to meet us. He told the interpreter that he could only obtain two small woodskins for our use, but after some persuasion, promised to go back and collect more, a proceeding that would detain him a few days.

I had my men employed in the interval in bringing up stores from the boat to our camp, a distance of about ten miles.

Mr. Bagot, the interpreter, and myself remained at the sand-beach, where we had built a shed and thatched it with the large leaves of a parasitic plant, after the manner followed by Indians in this part of the country where suitable palm leaves are scarce. These leaves are split at their base with a knife, and hung on poles tied across the roof, one leaf overlapping the other, and thus rendering the whole impervious to rain. Whilst there we made an excursion down the river's edge to the great fall of Sericoeng, a few miles off, where the whole of the water of the Mazaruni was precipitated over three steps, the last being more than a hundred feet in height, into a large almost circular basin bounded by high cliffs. On the precipice edge on the north side we cut down some trees in order to see the face of the fall, thereby

disclosing to view the singular isolated box-shaped mountain of Ayangike with its perpendicular sides of pinkish rock. From this spot it resembled the ruins of a castle with ivy clinging to its walls. Singularly enough, its position was on a forest-covered glacis above the hills to the south immediately over the fall, so that it added greatly to the beauty of the scene. Ayangike is a regular landmark in this district, being visible from near the head of Aruwai, from this spot, and from our camp at Siparimer.

In three and a half days' time the Indians returned with two woodskins, stating that they could not get any more, though they had been up the Carimang river in search of them. Finding that it was impossible to get the Indians to bring more than two woodskins, I determined to take three men with me and go on to the main source of the river, sending back the other men and boats in charge of Mr. Bagot, to await our arrival on the Merumé river, a branch of the lower Mazaruni, whither I would find my way by an Indian path across from the upper Mazaruni. Mr. Bagot accompanied me to the top of Siparimer cataract, where we loaded our woodskins, and when he saw how deep they were in the water, he expressed his satisfaction at not having to go in one. I bid him adieu, and proceeded up river, reaching a village landing called Mokayparu, in the afternoon, where, to my astonishment, I saw two large and seven small woodskins.

On questioning the Indians about them they said that one of the big ones was for us, the other had been brought down river after they left, and the

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SERICOENG AND AYANGIKE.

small ones were considered of no use to us. It then became apparent to me that the Indians had been deceiving us in the matter of woodskins, in order to prevent the whole of my party from coming into their territory, owing to their having been told by some Arecunas that we were on a slave hunting expedition.

We left Mokayparu in three woodskins, and proceeded to the landing of the village of Cawayek, where we found a lot of Indians encamped. They were in two parties, one consisting of the village people, and the other of two men and their wives, who had come down river, as they afterwards told the interpreter, to offer their services as guides; but seeing us already provided, they arranged with our guide to take us over from his custody on arriving at their village landing.

The trees lining the river's edge in this part were chiefly of a species of mora, while amongst them were a few representatives of the *Mora excelsa*. This is the only portion of the colony in which I have seen the *Mora excelsa* growing at such an elevation.

The seeds of the first-mentioned mora have a pink inside, and are used by the Indians as an article of food, after being boiled, then soaked in cold water for a day or two, grated, and mixed with cassava meal. They make the cassava cakes look coarse and dark-coloured, but give them a pleasant, sweetish taste.

Our course from Sericoeng falls was southerly for a couple of days along the river, which lay smooth and broad in a wide, tree-clothed valley, flowing at a height of over 1200 feet above the sea, and bounded

by high sandstone precipices not far off on either hand, which disappeared upon the valley widening between the mouths of the Caramang and Cako rivers.

On our second day's journey in canoes we came to the end of the Carabung path, which Mr. Sawkins and I traversed in November, 1868; and on our third day passed the landing at Apiopai, where, on the same occasion, we spent a weary time trying to collect provisions.

Upon this elevated portion of the river the nights were chilly, and having neither an awning with me nor a rug to wrap in, I was frequently awoke by the cold.

After passing the Cukuie, we arrived at the landing of the village of our travelling companions, where the Indians from Cawayek and Mokayparu formally resigned their posts, were paid off, and started on their homeward way; while the new guides, two in number, assumed office in their stead. One of these men could speak a little English, and had worked on the Demerara wood-cutting grants. He wore a shirt and trousers during the day when it was hot, but took them off at night when it was cold.

From the Cako our course, though winding, was in an easterly direction, and we passed through a tract of country from which the forest had been stripped by fire, many years ago. Ferns and coarse grasses covered the soil and rocks, and a few blackened tree stumps still remained standing. Amongst the shrubs which flourished there was one with polished dark-green leaves and beautiful wax-like flowers, resem-

bling single roses in form and size. Their centres were yellow, and their petals white, tipped with carmine. A delicately scented ground orchid, with exceedingly long flowers of a yellow colour dotted with brown, was very common.

In passing the Carowuring, a river coming in on the north, the guide informed us that when high it is navigable for canoes for half a day's journey up, to the foot of a high fall, at which there is a large sand-beach, marked with mysterious footprints resembling those made by the human foot. The sand also is thrown up as if children had been playing there. If the Indians who visit the spot trample down these heaps, and go away for a short time, on their return they find them there again as before. The Indians believe that wild men live near the spot, but have never yet succeeded in seeing them.

Along this part of the river are many deep pools, where the banks are formed of horizontal beds of sandstone, ledges of which run out into the river. Under water, in three of these pools, our guide said the huge, black, short-tailed Wailah tigers live. He said that coming down the river early one morning, he saw two of these creatures come out of a side creek, swim a short distance, and dive under a ledge of sandstone.

Can it be that in the bank at the place there is a cave, reached by passing under the water, in which the tigers live?

Many Indians see them frequently sleeping on the rocks in mid-river. He also said that some years ago a man and his family were fishing in Tembe creek, near one of these places, when a black tiger rushed out

upon them. They attacked it with cutlasses, and drove it off for a time; but it followed them to their house, and there sprang upon a man, whom it wounded severely, when, as before, they all set upon it with cutlasses and drove it away.

We arrived at a village called Ackar, where there were some fine-looking Indians, amongst whom was a singularly handsome woman, and a strong, well-built man, with long curly hair, a fine specimen of an Indian athlete. We there learned of the existence of a great fall, called Chichi, which we should have to pass in order to continue our journey to the source of the Mazaruni.

At a place farther on, where we entered a gorge in the mountains with high sandstone precipices on either side, our guide pointed out a cave in which he said the Salies or Guacharo birds (*Steatornis caripensis*) live. Wishing to see them, we ascended the slope to it, arriving at a great vertical rent in the rocks, some ten feet wide and fifty feet high.

The Indians halloed and threw stones up amongst the ledges of rock in the recess of the cave, causing the birds to utter a strange squeaking cry, but without starting any from their hiding places. Upon the uneven floor were numbers of nuts of the Turu palm (*Œnocarpus bataua*), which had been swallowed by these birds, and disgorged after the thin pulpy covering had been digested.

The Indians had a bush-rope, made fast on the cliff above, let down through a hole in the roof, which they used for climbing up to dislodge the young salies from their nests on the ledges. They eat these young birds and make oil from their fat.

Some cocks of the rock had their nests on the ledges near the entrance of the cave, rudely constructed of clay. At Ackar the Indians had two tame birds of this kind, which they had caught with strong snares placed on the ground at their dancing places.

From the cave's mouth, at a height of 1882 feet above the sea, we had a grand view of the north-eastern side of Roraima and its surrounding mountains, some thirty miles distant. Upon the side of Roraima I saw an enormously high waterfall, looking like a white thread against the dark-blue mountain.

The Indians said that it was the head of a branch of the Cotinga river; but I afterwards learned from an intelligent Arecuna that it was the head of the Caroni river, a branch of the Orinooko. It is probably the highest fall in the world, and at the same time of considerable width. The vertical portion of Roraima is 2000 feet in height, over the upper half of which it fell like a plumb-line, and then descended with a slight slope outwards. The remaining 3000 feet to the valley below slopes at an .angle of 45°, and being tree-covered, the rest of the fall is hidden by foliage.

I would have visited this fall had not stern duty led me in another direction.

We went back to Ackar village to engage people to come up to Chichi fall to assist in carrying our woodskins over, and also went inland to a village, called Cowaeng, near Mount Camooda, where I got some more Indians to come with us. The chief man of Cowaeng had fourteen children, which constituted an extraordinary large family for an Indian, the usual number seldom exceeding four. This is owing, I sup-

pose, to many children dying when young, from their parents lugging them about on long journeys.

All Indians seem much attached to their children, and the mothers always carry them on their hips as soon as they are able to hold on. Previously to that they carry them in a wide endless woven band, passed across one shoulder and the opposite hip.

Of the old man's family, four daughters were grown up, three being fine, good-looking unmarried girls, while the fourth was ugly and married. I have often noticed that Indian men, as a rule, choose ugly women for their wives; and it appears to me that their ideas of beauty consist in plainness of features.

In the valley below Chichi fall every curiously formed rock had its Indian name, and besides the usual cognomens of the "Paiworie corial," "Cassava cake," &c., there was one called the "Woodpecker's mother," and another the "Fish club."

We arrived near the portage of Chichi (so called from a large green grasshopper which frequents the neighbourhood) at midday on the 3rd of November. I walked over the rocks to the fall, while the Indians went to clear the steep path up the mountain side of overhanging branches, in order to allow the canoes to be carried up. Traversing the huge flat rocks that almost filled the bed of the river, up an inclined plane for a distance of about half a mile, I came to the foot of Chichi, which I found to be about one hundred feet in height and quite perpendicular. Its width at the time was only forty yards, owing to the dryness of the season. We spent a day and a half at Chichi, during which time the Indians carried our two large wood-skins across the portage.

The Indians had erected a small banaboo on the bank's top, a little way in the forest, whilst my men and I hung our hammocks to poles stuck in the sand near the water's edge. On the second night of our stay, about midnight, I was aroused from a sound sleep by rain pouring down upon me in torrents. Jumping out on the wet sand, in a semi-bewildered condition, I felt on the ground for my shoes, but in the intense darkness only procured one. As my hammock was rapidly getting wet, I struggled at and untied the rope of one end; then I got desperate, felt for and found my other shoe, and dashed at the other end of the hammock, where I found Ben good-naturedly untying it for me. Putting it in my tin canister, I turned and flew up the bank to the Indian banaboo, which I reached after nearly being decapitated by lianes across the pathway, and there found seven Indians and my three men under the little shelter it afforded. Three of the Indians hung in their small red hammocks suspended against the roof, like so many bats, whilst the rest of us crouched round a small fire which we kept going in order to dry and warm us, all being in a thoroughly soaked condition. In this way we spent the rest of the dreary night, until the long-wished-for daylight came, listening to the patter of the rain on the trees and ground.

By 8 A.M. the rain had ceased, and we soon after started along the pathway, three Indians carrying the third woodskin, the remainder carrying stores.

We ascended the mountain side on the south, coming out on a bare rocky savanna, and walked in an east-south-east direction up a gradual ascent to a

ridge, from which the view of the surrounding savanna mountains was very fine. Many curious flowering shrubs and plants dotted the surface of the country near the path.

After three and three-quarter hours' quick walking we reached the Mazaruni river, where its black water flowed smoothly along at a height of 2084 feet above the level of the sea. Paying the Indians for their services, we adjourned to the friendly shelter of a projecting cliff of red sandstone, where we lashed poles together to support our hammocks, and spent a comfortable night. One of the two Indians who had come down to meet me at Cawayek—a fat, chubby, jovial fellow—left me to return with the Ackar Indians, on his homeward voyage, while his companion remained and eventually went with me to Georgetown.

Our object being to find the Haiacker river in order to procure a guide, we proceeded up stream, and on coming to a large muddy branch on the right hand, ascended it. Meeting with some Indians, we learned that we were on the Haiacker, and they accompanied us to their landing a short distance up a little branch.

The Haiacker was bordered by forest, but its branch ran through savanna, whilst the path on to the village lay mostly through open country. From a rising ground in the savanna, the huge mountain of Ayangcanna could be seen in the distance to the east-south-east, forming a most singular picture. The word Ayangcanna rendered into English means "Lice searchers." It has got this disagreeable name from a row of huge pointed rocks on its crest which are sharply defined against the sky, and to the Indian eye

resembling a row of women seated one behind the other are [illegible] each other's heads for vermin, a custom very prevalent amongst all Guiana tribes. The upper five hundred feet or [illegible] of the mountain is within the region of fleecy white clouds which, in passing, completely envelopes the top.

I sent my men to the village some distance off, and they returned, stating that on their approach all its occupants fled, except one old woman, who told them the men had gone to another village.

Whilst I was making a sketch of Ayangcanna in the afternoon fifteen Indians came up to me, and then accompanied me to camp, where they had a long talk with the interpreter. They told him they had heard of our coming for the purpose of enslaving them, but knew it to be untrue, for a man from the Potaro river, who was then amongst them, had seen me on that river and had given a favourable account of us. They belonged to the Partamona tribe, and the men were an exceedingly free and easy lot, without any timidity about them. One of them agreed to go with me as guide to the farthest point it is possible to reach in woolshins on the Mazaruni; others promised on my return to guide me to the Orindouie fall on the Ireng river.

We descended the Haiacker and continued our journey up the Mazaruni for two days, arriving on the afternoon of the 8th of November at the utmost limit of our journey, where the river was only twelve yards wide and a few inches deep, at the foot of a fall which is never passed by Indians. During the forenoon of this day we passed a part of the river where large trees had fallen across it, so that in places we

passed with difficulty over some and under others. We spent the night below the fall, near the path leading to the Karnang, where there were some leaky old banaboos, in which we had to take shelter from the rain, and sit up the livelong night. Owing to the torrents of rain that fell that night, the water in the river rose seven feet, so that on the following morning we descended on the flood, and passed over the numerous obstructions met with on our way up.

The only fish to be procured, in this part of the Mazaruni, was a short, small, stubby creature having a spot on each side, being probably of the same family as the sun fish or lukenanie. The Indians procured some by bringing the woodskin to a stop close to a bank, where rocks or sunken logs were numerous, and then whistling softly, upon which these fish swam slowly out from their hiding places, as if to inquire into the cause of the sound, and were shot with the arrow or taken with a baited hook.

On our way we passed a deep pool, where there was an eddy, in which the guide informed us there lived a "water child" covered with long hair. A woodskin with Indians was passing the spot one day when the water child came to the surface, caught hold of, and upset the canoe. One of its occupants sank with it, and, being seized by the child, never came up to the surface again.

The first night of our return journey we found the shelter of a small shed we had built on an open sandy beach on our way up, when we were visited by a storm of thunder, lightning, and rain. The wind blew the rain through and through our shed, putting out our fires and making us wet and uncomfortable. The

lightning was most vivid, being of a violet colour, and rendering everything for the instant as plain as in the day.

Next day we ascended the Haiacker again, getting back to our old camp, where we placed our stores in packs, and crossing a tract of open country, the surface of which was strewn with most singular looking flowers, grasses, ground orchids, &c., many of which I had never seen before, reached the village of Haiacker. This was prettily situated on a spur of a greenstone mountain, facing south, commanding a fine view of the mountains forming the watershed between the branches of the Mazaruni on the north, and the rivers which flow into the Amazon valley. With my men and four Indians I started on my journey to the Ireng river, and descending the wooded mountain, passed another village, coming out on a savanna. Crossing it, we entered the forest again, and had no more open country for the rest of our journey. We passed through two more villages, and came to a single house in a new clearing, called Enawarike, where to my disgust we found four young Indians, dressed in cucurit palm-leaves and paint, dancing and singing round two corials of casserie, in the centre of the house. I learned that they had come as a deputation to invite the people to a "grand paiworie," and were observing the ceremony usual on such occasions. Knowing how pertinacious these fellows are when they once begin to dance, I felt sure that they would keep at it all night, but before hammock time came I was glad to see the dancing cease.

The rain prevented my sleeping outside, so I had to

put up with the heat, smoke, and flying cockroaches within, for the night. The short rainy season had by this time thoroughly set in, and we could not look forward to any really fine weather during the rest of our journey.

Next day we crossed the Haiacker river, at the foot of the watershed, where it came tumbling down the mountain side at a steep angle, and passing up a steep ascent we reached the mountain top early in the afternoon. As we passed along amongst great blocks of greenstone in the deep shade of the forest, at a height of 3000 feet, a great black cloud completely enveloped us, from which for a time torrents of rain fell.

We then descended the other side of the watershed, and saw the head of the Ireng, where it was scarcely two feet in width. Building a leaf shed for the night, we changed our soaking clothes, and made ourselves as comfortable as circumstances would permit. The ground under my bare feet felt icy cold, and the wood gathered for the fire was so soaked with rain that it would only smoulder, without giving out heat.

The walking next day was exceedingly rough, over hills and hollows, and across numerous branch streams of the Ireng. In one stream our Indians caught some crabs, little fish, and light-coloured frogs, all of which they roasted and ate. We crossed a large branch of the Ireng, called Cakoparu, and in the afternoon came upon the Ireng itself for the second time, where it was of considerable size. Striking off from its eastern side, we ascended a steep hill to an open, sandy, level place, in which a village, called Waipahyaracapu, was situated. One of our Indians, who had brought his gun with him, on reaching the first house suddenly fired

it off across the doorway—rather a startling mode of salutation.

The evening was so clear and bright that from the village the top of Ayangcanna could just be seen over the flat-topped mountains to the north.

Whilst waiting for stars to come to the meridian, in order to obtain observations for latitude, I saw upon the ground a most curious worm-like insect, of about an inch in length, which had a phosphorescent light in its head, and two rows of similar lights down its back. When at rest it extinguished its body lights, but when touched it made them flash out with great brilliancy, like so many minute shining emeralds.

Numbers of purple-throated cotingas (*Cotinga cayenna*) were to be seen feeding on the berries of shrubs about the houses, and on the seeds of the silver-bally tree in the adjacent bush.

I went down the Ireng in a woodskin to the head of Orindouie fall, which I had visited on ascending that river in 1871. I was surprised to see that a village had sprung up on the east bank, close to the head of the fall, at which were gathered some fifty people, who had come from villages below to meet me. Amongst these I recognized several old acquaintances of my former visit, one being the head man of the village below the fall.

At a village on the way back to Waipahyaracapu I observed a male papaw tree, bearing fruit, which on examination was found to be in every way similar to that on the female tree.

We left Waipahyaracapu, and commenced our return journey to Haiacker, in a steady fall of rain, which continued all the first day and in showers on the

second. At noon on the third day we got back to Haiacker village from which we had set out, and there remained for the night.

One house had been given up to us, where during the afternoon the people of the place and a lot of Indians from another village pestered me with their company. Squatting on the floor, all round the edge of the house, they talked and watched my every movement with curiosity. The interpreter, after a great deal of trouble, got them to leave me in peace for a time, but no sooner did we turn into our hammocks for the night than a lot, chiefly men from a neighbouring village, came back, headed by the chief of the place, and squatting down again, commenced a long conversation with the interpreter. They told him that a story was circulating amongst the surrounding villages, that I had come up to ascertain the number and whereabouts of the inhabitants of this part, so that the people of the coast could send up a strong party to capture and carry them into slavery. They therefore formed a deputation from those villages to inquire if there was any truth in the story. They all seemed considerably depressed, and listened attentively to every word of my reply, as translated to them by the interpreter. After about an hour's palaver I was able to do away with all their apprehensions, and show them how foolish such an idea was. Then filing out of the house, in cheerful frames of mind, they left us to our rest.

The fears induced by tales handed down to them by their forefathers, of the abhorrent and evil practic of enslaving Indians carried on by the Dutch and

Brazilians in former days, will never be completely eradicated from their minds.

Leaving the village we proceeded to our canoes on the Haiacker, accompanied by nine Indians, and descended that river to the Mazaruni; then down the latter river to a landing on the north bank at the head of the Chichi falls. Carrying the three woodskins for about one mile across a savanna, we launched them in a branch river, called Ow-weang, and paddling one day's journey up it in a general north-easterly direction, came to the landing of the path leading through to Merumé.

On giving the Indians some rice to cook that evening, the men told them to wash it first by dipping the earthen pot in the water, but to this they demurred, saying that if they placed their pot in the water the rain would fall more heavily.

Making packs of our small stock of food, instruments, &c., we started on our journey across to the Lower Mazaruni at 9 A.M. on the 23rd of November. The path was wide, and apparently much used, but at the same time extremely rough, fallen logs and tree-roots crossing it in all directions. It was all through forest, up a steep rise at first, and then along a gradual slope, intersected by deep gullies and small streams. At one stream on the way the Indians caught numbers of small shrimps, which they devoured uncooked. During the afternoon we crossed the head of the Ow-weang, and at 1.40 P.M. the head of the Mazaruni itself, running east at a height of 2315 feet above the sea. From thence, until we reached the edge of Merumé mountain at 3 P.M., the walking was

dreadfully rough, being up and down gullies and across hills and streams. From the brink of the great escarpment of Merumé, at a height of 2353 feet above the sea, the great level tree-clothed plain, through which the Lower Mazaruni winds, lay spread out before us, which had to be gained before we could reach our boats. After resting a short time we commenced to descend, amongst great sandstone rocks and over slippery tree-roots, until we came to a perpendicular wall of rock, where a rude ladder of poles, with its rounds lashed to it by bush-ropes, had been made by Indians, down which we had to make our way. We passed down two of these ladders, and descended about a thousand feet, when late in the afternoon we came to a camping place at the foot of an overhanging precipice, where some slight shelter could be obtained for the night. There we rigged up poles by sticking them in cracks and lashing them together, and tied our hammocks to them for the night. This was hardly accomplished before a heavy rain and thunder storm broke over us, which lasted until dusk.

Nearly all the members of the party had one or more falls in coming down the mountain side. The guide came a cropper in front of me, at which I laughed; and five minutes afterwards, when I performed a similar feat, spinning down a smooth rocky slope for five or six yards on the broad of my back, he returned the compliment heartily. One Indian, who carried our only large tin cooking saucepan lashed to his pack, fell so often that when he delivered it up in camp it was so battered and pierced with holes that it was no longer of any use. The only

water we could procure was caught in calabashes from a drip over a rocky ledge, and a bath was obtained partly from the water thus caught and partly by standing in the rain.

The Indians begged my men not to roast salt fish on the embers, fearing thereby to arouse the ire of a large eagle and Camoodie snake, which they said lived on the mountain side, and would show their displeasure by causing more rain to fall.

Next day we continued our descent of the mountain over a less precipitous path, and then down a long slope, while rain fell in torrents. We came to a branch of the Merumé river, called Warongabong, at 9 A.M., and, in crossing this swollen stream on a slippery log, I was unfortunate enough to slip off into the water, but grasping the log saved myself. Walking some three miles along the level plain at the mountain's foot, 260 feet above the sea level, we came to the path end on the Merumé river in a most sodden, bedraggled condition, and there found a camp that had been formed by my men from the boats. We had not been there long before three of the men came up stream in a woodskin, from whom I learned that the boats were at the foot of the fall some miles down, and that three men at a time had been up at this place in readiness to take us down when we should arrive. Going with them, we reached the boats late in the afternoon, and were heartily welcomed by all. There Mr. Bagot and myself exchanged mutual congratulations on meeting in safety after our perilous journeys.

Paying off the Haiacker Indians, we descended the Merumé next day, and on the following morning

reached Sororieng landing. When we were at that place on our way up an accident occurred to a party of Indians, late one evening, by a gun, placed carelessly in the rafters of a hut, falling and going off amongst them, wounding one man in the thigh, another in the finger, and a woman in the back. The first-mentioned individual was very severely injured, and we found him lying in his hammock in a fainting condition. He had three shots in the right thigh and knee, one in the left knee, and a wound in his left side. We administered laudanum and brandy, applying Friar's balsam on lint to the shot-holes. The other two were wounded very slightly, the man having one shot in his finger, and the woman a slight graze in the back. We now learned from the Sororieng people that the wounded man had got quite well, and had gone to his home on the Cukuie river.

At Sororieng I purchased a tame Labba tiger (*Felis pardalis*) from the Indians, and took it on board one of the boats. Though ill-tempered at first, it soon became acquainted with us, and was, until its death, some six months afterwards, a most amusing pet.

Running pleasantly down the Mazaruni, we reached the Penal Settlement on the 2nd day of December, and from that place went on to Wakenaam stelling, at the mouth of the Essequebo, where we joined the coast steamer, and by it arrived safely in Georgetown on the 4th; thus bringing to a close the last of my journeys to the interior of British Guiana.

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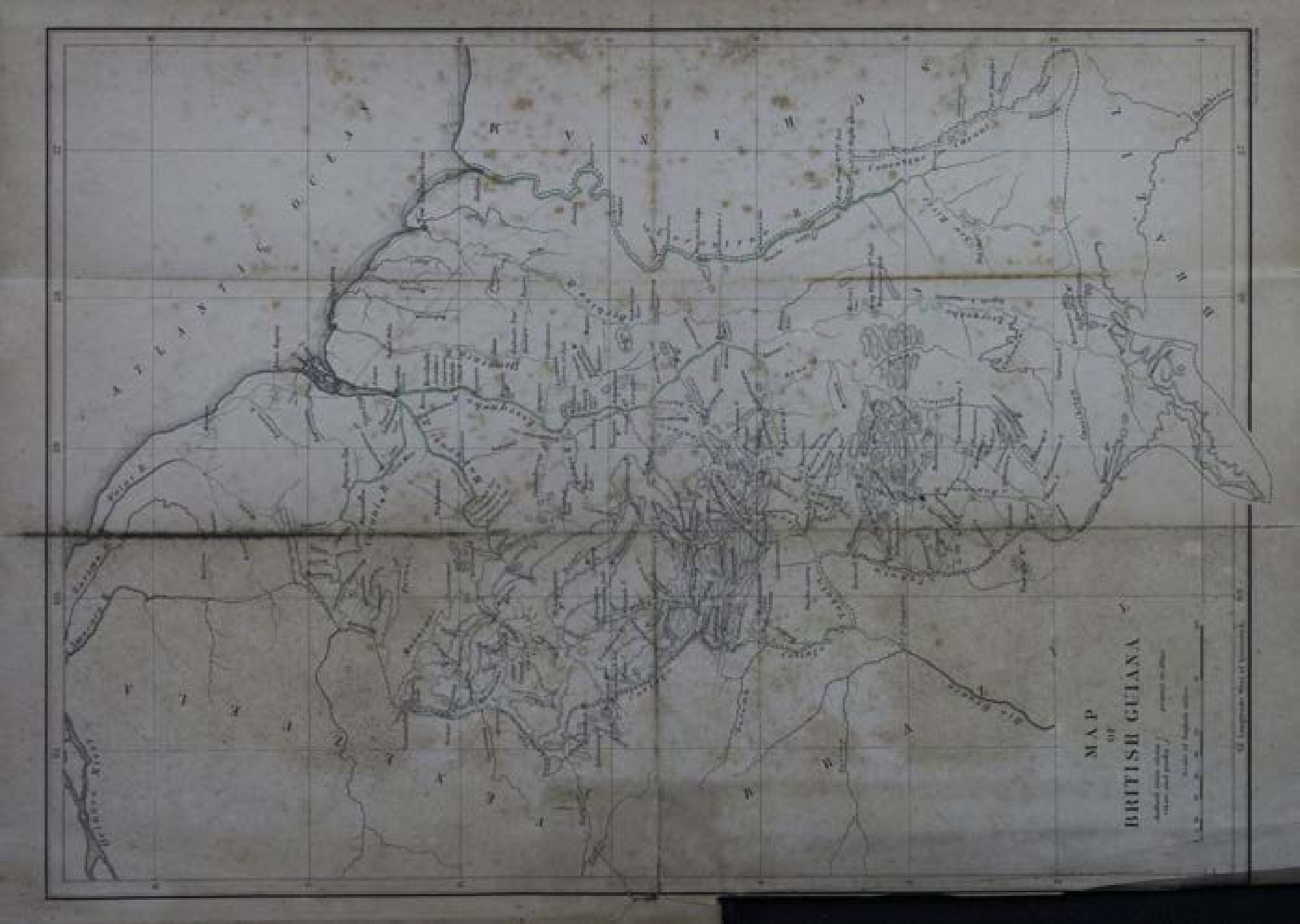
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